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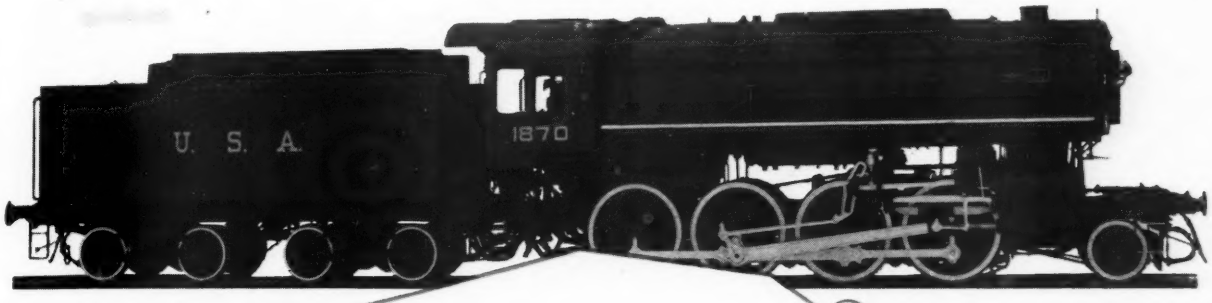
JULY 17, 1943

# Railway Age

*Founded in 1856*




## NEW LOCOMOTIVES PIPED WITH BYERS WROUGHT IRON

The aim of the army is to make the U. S. soldier tough enough to face any enemy in any situation—and the same thing goes for equipment, whether planes, tanks, guns . . . or locomotives. New locomotives like the one pictured, recently built by Lima Locomotive Works, were armed against fatigue and corrosion attack with Byers Wrought Iron piping.

The use of wrought iron for locomotive piping is a long-established practice with American railroads, and the list of users includes most of the best-known names in transportation. A number of roads use wrought iron pipe throughout on all locomotives. Applications include several services where material shortages have forced a change in previous practice, and where wrought iron is proving a completely satisfactory alternate. Lubrication lines are one small but important example.

The job that the railroads have done and are doing calls for maximum utilization of all motive power, and some materials that were "good enough" for normal use can't stand the accelerated wear and tear. If you are concerned with construction or repair, you may find it helpful to check wrought iron's performance—as reported by other railroad users—against your present durability requirements. In any applications where pipe is exposed to severe corrosion, or to shock or vibration that might cause fatigue, generations of railroad experience indicates that wrought iron will have a longer useful life.

Our Engineering Service Department will be glad to digest service records from our files on any applications in which you are interested. If wrought iron can help you to get a few thousand extra miles out of your locomotives between shoppings, you'll certainly want to know it.

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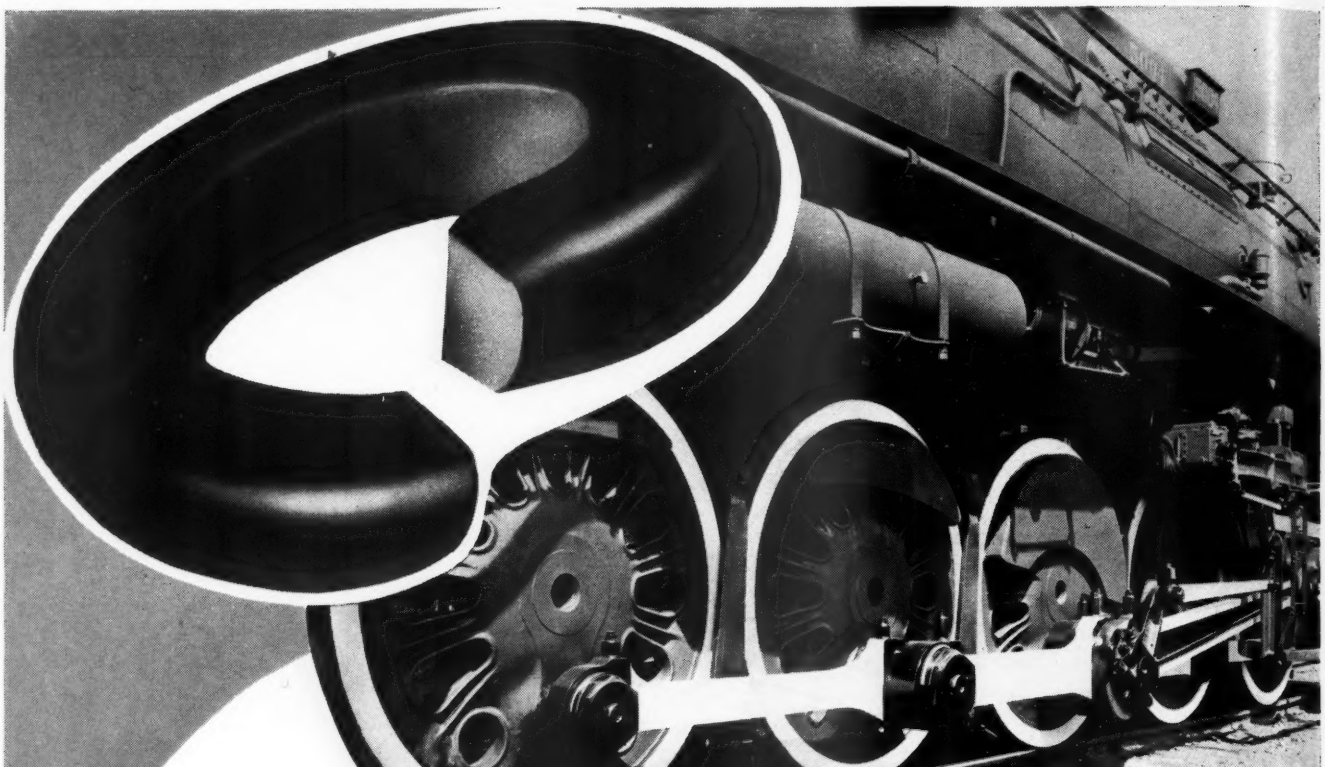

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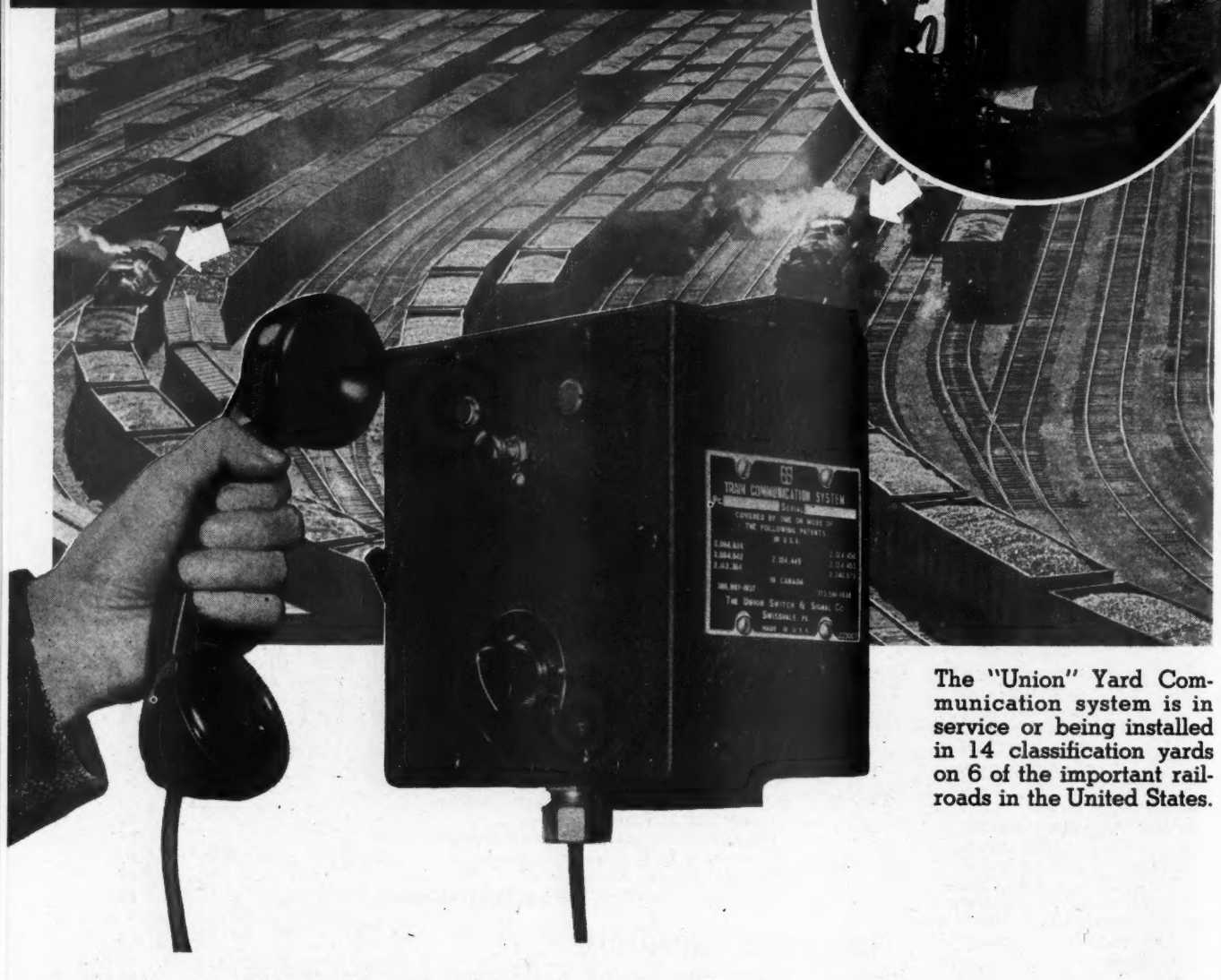
***PRINTED IN U. S. A.***

# *Within arm's reach* of the Yardmaster!




The "Union" Yard Communication system is in service or being installed in 14 classification yards on 6 of the important railroads in the United States.

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For further information, see our Bulletin 158 which explains the many operating advantages of this modern communication system.

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# The Week at a Glance

**IT'S NOT TAKE-HOME PAY:** Railroad stockholders these days are making big money—so the books show. But it is not take-home pay, for dividend disbursements have remained modest. The I. C. C.'s Bureau of Transport Economics and Statistics has calculated the net income for the 12 months ended with April at $1,103 millions, the equivalent of 13 per cent on the par value of capital stock. Out of this the Class I roads paid only $200 millions in dividends.

●

**MORE FREIGHT CARS?:** The War Production Board has authorized the construction of 5000 box cars in the latter part of this year and early 1944, and it may allot sufficient materials for the construction of 6000 more. That's what R. E. Clark, manager of the Car Service Division's Closed Car Section, told last week's Chicago meeting of the Mid-West Shippers Advisory Board. And ODT Director Eastman's message carried assurances of his determination to press vigorously with the allocation authorities for more equipment. A report of the sessions appears in the News Department, where another story reviews equipment market developments of this year's **first half.**

●

**TOWARD RATIONING:** The Southern Pacific this week took a step toward the rationing of coach travel when it announced that it will henceforth require advance reservations. They will be made for specific trains, but not for specific cars or seats; and service men, who are to be given preference, must nevertheless reserve like other passengers.

●

**POSTWAR COMPETITION:** The issue as to what should be the postwar relationship between the railways and other carriers has been raised acutely by Senator Wheeler's recent notice of intent to sponsor legislation to prohibit railways from owning buses and trucks. Because he also opposes railroad entry into water or air transport, he apparently favors regulation of all carriers, with the relationship between railways and other carriers wholly competitive. This issue's leading editorial discusses the vitally important question thus posed, i.e., whether the competition would be under conditions affording equality of opportunity. It asserts that the railroads can meet all kinds of competition on equal terms, but no more than any other private industry can they withstand competition backed by government with both its power of regulation and the taxpayers' money.

●

**STILL STABILIZING:** Economic Stabilization Director Vinson continues to proceed on the assumption that he is really expected to do some stabilizing with respect to wage recommendations of National Railway Labor Panel emergency boards. His recent order staying the eight cents per hour increase for non-operating employees has been followed by another which cuts from 16 cents per hour to 14 cents a recommended increase for Chicago, North Shore & Milwaukee trainmen. Meanwhile, the OES director has approved, without modification, the same board's other report on the controversy growing out of the failure of certain short lines to bring wages into line with the general adjustment of December, 1941.

●

**SHORT LINE DEFINED:** It means a railroad that is "short in mileage or short in revenue or short in both." So Secretary-Treasurer Huntt of the American Short Line Railroad Association told the op wage board this week. And representatives of the Atlanta, Birmingham & Coast were on hand to qualify their road on the "short in revenue" basis. Its counsel predicted that a wage increase would put it out of business, as would have been its fate before now except for periodic "transfusions" from "new sets of suckers."

●

**MAY ACCIDENTS:** May's 12 passenger fatalaties in train accidents equalled those of 1942's first five months and brought the 1943 five-months total to 15. At the same time total fatalities to all classes of persons were down to 407 from May, 1942's 413, but total injuries were up from 3,453 to 4,860. Five-months totals were: fatalities, 1,968 compared with 2,007; injuries, 24,018 compared with 17,339.

●

**MAKE-WORKERS:** Canadian National officers recently told a Parliamentary committee how this government-owned road could be used to provide postwar employment—if the Dominion were willing to finance a $640,292,000 program embodying projects of the non self-liquidating as well as the self-liquidating variety. Employment amounting to 95,300,000 man-days would result, they said. C. N. R. President Vaughan made it plain that in presenting the survey the road was merely meeting a request from the committee.

●

**TIE RENEWALS UP:** Despite widespread loss of production and large use by the Army and Navy, the railroads inserted 3.7 per cent more ties in replacement in 1942 than in 1941, the respective totals being 48,616,228 and 46.875,815. And in '42 they used relatively more treated ties—89.6 per cent as compared with 87.5 per cent. These data, compiled by the Bureau of Railway Economics, are presented and interpreted in a feature article herein.

●

**GOOD LOOKING 4-8-4s:** Fifteen new Alco-built 4-8-4 freight locomotives were recently placed in service by the Delaware & Hudson on its 243-mile run between Oneonta, N. Y., and Rouses Point. They are described in one of this issue's feature articles which calls them good-lookers, attributing the eye appeal to their clean-cut exterior design, with long covers over sand box and dome and the runboard design blended in with that of the side plates and front-end trim. They have tractive force, too—62,040 lb.

**PLASTIC POSSIBILITIES:** Railroad men looking ahead to the postwar era, when their passenger-service equipment must be appealing as well as comfortable, have naturally turned to thoughts of plastics. But much remains to be told about physical qualities and performances of plastics at this time when the forward-looking equipment designer wants accurate information as to tensile strengths and abilities to withstand wear and shocks. Such uncertainties should not, however, divert the railroad industry to the view that the plastic child has yet to grow up; for, as one of this issue's editorials suggests, the grueling conditions experienced in highly-stressed war equipment may be developing the youngster at a more rapid rate than is generally realized.

●

**POST MORTEM:** ODT Director Eastman came up on July 8 with an "I told you so" statement addressed to the traveling public which had overtaxed transportation facilities on the Fourth-of-July week-end. He hopes that those experiencing the discomforts predicted in his pre-holiday appeals will hereafter have a better understanding of what the carriers are up against. And the ODT director still had the matter very much in mind this week when he addressed a Cincinnati meeting of the Y. M. C. A.'s Transportation Department. There he asserted that travel conditions remain far worse than they should be, because the public's record on self-restraint is "not so good."

●

**TIME-SAVING C. T. C.:** The Nickel Plate has been installing centralized traffic control to increase the capacity of single-track sections which alternate with the double-track segments of its heavy-traffic line between Buffalo, N. Y., and Arcadia, Ohio. Typical of the installations is that described in an illustrated feature article herein—the 22-mile stretch between Kishmans, Ohio, and Kimball, where the overall train-time savings have been four to five minutes for symbol freights, and 23 to 24½ minutes for third-class trains. An average of 17 train stops are eliminated daily.

●

**FINAL ARGUMENT:** The op wage hearing which had been underway at New York since June 7 was in the oral-argument stage when this issue went to press, and it was expected to close before the end of the week. Brotherhood Counsel Flynn seasoned his review of the evidence with a bit of demagogery, accusing capital of using the war and the stabilization program to stop "just" demands of labor. Carrier Counsel Aronson could find no such lush fields for capital to harvest in an industry where 58 per cent of all outstanding equity money was receiving no dividend. He warned employees of their vital stake in the survival of the railroad industry under private management; for government ownership "would carry with it more grievance for the workers than for the investors."

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## WITH

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## Postwar Competition in Transportation

The announcement of Chairman Wheeler, of the Senate Committee on Interstate Commerce, that when Congress reconvenes he will introduce a bill to prohibit railways from owning buses and trucks raises acutely the issue as to what should be the postwar relationship between the railways and other carriers. He added that the railways should not be allowed to own carriers by water or air, either. This apparently means that, in his opinion, all carriers should be regulated, and yet the relation between railways and other carriers should be wholly competitive.

The vitally important question in this connection is whether the proposed competition would be under conditions affording *equality of opportunity*. Would all carriers be regulated alike, and all required to defray all costs of providing their service from their own earnings? Or would they be so differently regulated that some would be protected from the competition of others? Would some be left to pay all their costs from their own earnings, and others be allowed to use at less than cost facilities provided by local, state and federal taxpayers? These questions, so important before the present war, apparently will be presented in more extreme form after the war.

Efficiency FOR VICTORY

Government policies of unequal regulation and subsidization of some carriers and not of others before the war caused great expansion of commercial transportation by highway, water and air; helped reduce the railroad industry almost to bankruptcy, and a large part of it to actual bankruptcy; almost arrested railway expansion in the decade ending with 1940; and contributed largely to increasing the indebtedness of the state and federal governments.

During the war, transportation of the greatly increased freight and passenger traffic has been concentrated on the railways. The results have demonstrated that the railways are far more essential to the public welfare than all other means of domestic transportation combined; that they have a vastly greater capacity than any but the best-informed suspected; and that, when afforded a capacity volume, they can handle traffic at greatly reduced capital and operating costs. Wages are much higher now than in 1929. Nevertheless, in the first five months of 1943 the railways handled 80 per cent more units of freight and passenger traffic than in the first five months of 1929, with an increase in operating expenses of only 17 per cent—resulting in a *reduction* from $8.68 to $5.62, or 35 per cent, in operating expenses per 1,000 units of traffic handled. This enabled them, with rates much lower than in 1929, to pay *359 per cent, or $584 million, more taxes* to the local, state and federal governments than in the first five months of 1929, and to earn 30 per cent more net operating income for themselves.

After this enlightening and really astounding experience, do the producers, shippers and people of the country desire such legislation as Senator Wheeler and others are proposing? As a whole, this legislation contemplates (1) huge expenditures to further subsidize commercial carriers by highway, water and air, and (2) forbidding of the railways to own other carriers, in order to intensify competition between them and the subsidized carriers. Numerous business interests pretending to favor "private enterprise" are backing much of this program, believing it to be in their selfish interest.

The railways can meet all kinds of competition on *equal terms*. Like any other private industry, they cannot withstand competition backed by government with both its power of regulation and the

**taxpayers' money—including taxes paid by the railways themselves. Current experience is demonstrating conclusively that co-operation by all carriers, under equal government treatment enabling each to get the traffic to which it is economically entitled, is the only means by which the public can be provided with good transportation service of all kinds at the lowest practicable total cost.**

**That is what the public needs. Is it not what the public wants? If so, the public will not support business interests and politicians who, for their own selfish purpose, promote policies shown by experience to prevent the public from getting what it needs and what it wants.**

## A Shortage in Paper

In the closing days of last December, the War Production Board issued an order requesting all publishers of magazines, newspapers and other users of print papers to reduce their use 10 per cent. Some weeks ago we told you, our readers, of the measures that we are putting into effect to comply with this request, including the decrease in basic weight (from 55 lb. to 50 lb.) of the sheet on which the *Railway Age* is printed, the narrowing of the page margins, the cutting off of subscriptions promptly at expiration, etc.

The effectiveness of these measures is evidenced by the fact that, by their means, we reduced our consumption 15.05 per cent. In other words, we exceeded the reduction suggested by the W. P. B. by 50 per cent without, we believe, reducing the value of our service to you, and our six publications thereby released more than 100,000 lb. of paper for other essential uses. Other magazine publishers have made corresponding reductions, as a result of which the W. P. B. has agreed, "in recognition of this fine record and the constructive co-operation rendered" by these publishers, to ask for no further reduction from them during the third quarter of this year. This action was taken in spite of the fact that a further order has been issued to the newspapers, curtailing their use approximately 5 per cent during the July-September quarter. This latter action is explained by the fact that the newspapers reduced their paper consumption only about 2½ per cent during the first half year.

But these curtailments by no mean solve the problem. The steady reduction in the back log of pulp wood demonstrates that further conservation is necessary. And the problem is not confined to publishers, for every user of paper—every railway and every railway supply manufacturer—can help by reducing its use (and inventory) of stationery, wrapping paper, cartons, etc. The situation warrants the study of every executive to insure that the waste and unnecessary use of paper by his company are eliminated. Only by the universal application of such measures, can an adequate supply of paper be made available to insure the continued distribution to you of the *Railway Age* and other essential media of information. We, in turn are preparing to initiate still further measures to reduce the use of paper, including the reduction of basic weight of sheet to 45 lb., beginning in August, although selecting a sheet that will not reduce the value of our service.

## The Use of Plastics in Railway Equipment

Railway mechanical department officers are interested in the possibilities of plastics as a substitute for other materials, and this is particularly true in the construction of passenger cars. The light weight of plastics, the fact that they lend themselves readily to color treatment, and their adaptability for moulding into complicated shapes, commends their use for decorative and finishing purposes. It is not surprising that passenger car designers have utilized them more and more on streamlined trains and in the modernization of passenger equipment along more artistic lines.

The use of plastics in this country was steadily increasing before the beginning of the present World War. In the past two or three years, however, their use in war equipment, and particularly airplanes, has been increasing by leaps and bounds. While such use is said to indicate amazing possibilities for civil purposes after the war, much secrecy has naturally been observed, and engineers in general and on the railroads are in the dark as to the physical qualities and performances of these new plastics. What the car equipment designer wants today is more accurate information as to the tensile strength of these materials and their ability to withstand wear and shocks.

The A. S. T. M. Committee D-20 on Plastics has developed six specifications and others are said to be in process.

There is a widespread impression among railway executives that special efforts must be put forth to hold and attract passenger business to the railroads after the war. This may, and undoubtedly will mean new passenger equipment specially designed to appeal to the traveling public as to convenience, comfort and artistic appearance. Making the cars as light as possible is also important from the operating and economic viewpoints. In planning for the post-war equipment and the possible use of plastics in its construction, it is therefore necessary to know as early as possible just what plastics will be available, what their physical properties are, and how they can best be utilized. The railroads can, of course, take no chances in using materials whose qualities have not been thoroughly tested out.

We do know considerable about those forms of plastics that have been in use for a number of years, but as one railway mechanical engineer expresses it, "the plas-

tic child has not yet even reached the adolescent stage and it is not now possible to say how useful he will be when he grows up." Possibly, under the grueling conditions experienced in highly stressed war equipment, this precocious child may have been developing at a much more rapid rate than we realize.

## Electronics In Railroad Service

The term electronics, in the average mind, is apt to conjure up such things as the still mysterious Radar or to be associated with spectacular demonstrations such as the popping of corn in a cold glass container. Actually, electronic devices have been used by the railroads since the turn of the century in the form of mercury-arc rectifiers in glass containers for battery charging. The reason for the present great to-do about them is that electronic devices are finding wide industrial applications in the general form of the radio tube. Such tubes are in fact valves which can be controlled electrically, magnetically, thermally, or by means of light. The exceptional quality of such electric valves is that the valve action is without inertia and the valve can, if desired, be opened and closed several million times a second. Basically, the tubes are capable of performing six functions. They can rectify, amplify, control or generate electric current, or transform light into electrict current, or transform electric current into light.

As a rectifier, the electronic device acts as a check valve and when placed in an alternating current circuit allows current to flow in one direction only. Examples of such application are the power rectifiers which supply direct current for the New York Central, Lackawanna and Illinois Central electrified sections.

When the electronic tube is used as an amplifier, a small current or voltage, usually of irregular form, is used to operate the valve and control a second larger current which is a duplicate of the original except for size. Thus the feeble impulses of the cab signal current in the rails picked up by the inductor on the locomotive is increased to a value sufficient to operate the relays on the locomotive, which in turn operate the signal lights. Every radio set similarly employs amplifier tubes to make the feeble radio signals audible.

When functioning as a control device, the electronic tube is used to start and stop current accurately at some predetermined time. This feature makes practical the use of stitch or "shot" welding for making stainless steel cars.

The term generator is applied somewhat incorrectly to an electronic tube which serves to change direct into alternating current. When used in this form, the valve is made to oscillate, to open and close rapidly, usually at some high and regular frequency. Radio sending sets employ such oscillators and a common railroad application is the carrier-current communication system. Each different frequency can be made to carry its own message with a number of them using the same wires.

To transform light into current, an electric valve sensitive to light is used. The net result is a flow of current which corresponds to the variations and intensity of the light source. Smoke detectors, sign lighters and door operating devices are typical examples. Similarly, light can be produced which simulates the electric impulse, but the most common application produces a constant light output such as the highly efficient fluorescent and mercury-vapor lamps.

The ingenuity of the designers is constantly extending the use of electronic devices. The important thing for the railroad user is not to be overawed by the element of mystery which surrounds this inherently simple device. It is after all only a valve which controls the flow of electric current. It is amazingly dependable and many new railroad applications are anticipated.

## Do Not Neglect Drainage

When labor becomes scarce or revenues fall off, there is a strong tendency to "cut out the frills" in maintenance and concentrate on the most necessary tasks. Obviously, under either of these conditions there is no objection to the cessation of work on projects the elimination of which will not result in deterioration of the property. Engineering officers should be sure, however, that they are not including certain classes of work unwisely in the "unnecessary" category. One of these, drainage, cannot be ignored with impunity, for penalties will be incurred that must be paid in full sooner or later, generally to the detriment of good operation and always to that of good maintenance and ultimate cost.

Important as drainage is at all times, few will dispute that it has never been so vitally necessary as now. Yet, with the critical shortage in labor that exists at present, how can work of this character be done? Obviously, only a relatively small part of the mileage on any district will require major attention, although minor work is generally necessary annually on a considerable percentage of the mileage, primarily in the form of surface ditching.

Drainage, as it must be provided to insure a solid roadbed, involves both surface and subsurface projects. The former include cleaning ballast, ditching, widening cuts, the construction of intercepting ditches, channel diversions and, sometimes, the installation of culverts. The latter include a wide variety of corrective measures, ranging from simple French drains to complicated systems of tunnels and perforated pipe.

In general, surface drainage projects are best per-

formed with earth-moving equipment, of which many designs are not only available but are already in use on most roads. Fortunately, in view of the present shortage of men, equipment of this type requires the services of only a few men to carry on. In fact, only recently, on one road two men with a tractor equipped with a bulldozer and a front-end loader cleaned the cuts and widened embankments on an entire district, doing work that would have required a work train and 200 men three decades ago. In general, the labor requirement for subsurface drainage projects is relatively small.

At present the railways are moving an exceedingly dense traffic at speeds well above any previous average. A roadbed that is unstable, a cut or embankment that is sliding, a place where water overflows the track at intervals, or any other of the results of faulty drainage, is likely to be highly detrimental to train schedules. When any or several of these situations are multiplied several hundred times, as they will be if all drainage work ceases, there will be a wide and adverse effect on the movement of traffic.

Roadbed stabilization requires a continuing fight, for new conditions are arising continually; places that have never given trouble may suddenly develop conditions that cause real concern; and spots that were thought to be cured may lapse into their former condition. A change in drainage, for which the railway is in no way responsible, may start a cut to sliding or cause erosion of an embankment. Whatever the cause, defective drainage always results in damage and almost invariable creates a hazard. Furthermore, unless action is taken, the condition will grow progressively worse and, inevitably, will require more effort to effect a cure, while costs will be increased correspondingly.

## Restrictive Tunnels Claiming More Attention

To the public the railroad tunnel has a certain romantic appeal, but to its owner it is likely to be a constant source of concern and expense, and in the present emergency it can be an outright obstacle in the way of a railroad's efforts to achieve a high degree of efficiency in carrying its share of the burden of the war effort. This is especially true of the older tunnels on important main lines, which not infrequently impose serious operating restrictions because of sub-standard clearances, preventing the operation of the largest available locomotives, or because the number of tracks through them is less than that prevailing in the particular district.

Under present conditions, the restrictive effects of such tunnels are more onerous than ever before. This is so because the increase in traffic to unprecedented proportions has magnified the effects of such restrictions, particularly where they prevent the railroad from calling to its aid the heaviest locomotives at its command. It is not surprising, therefore, that projects looking to the removal of restrictions at tunnels are prominent among the types of improvement work that are currently receiving attention. Perhaps the fact that corrective work at tunnels frequently entails the use of little or no critical materials has been a contributing element in this situation.

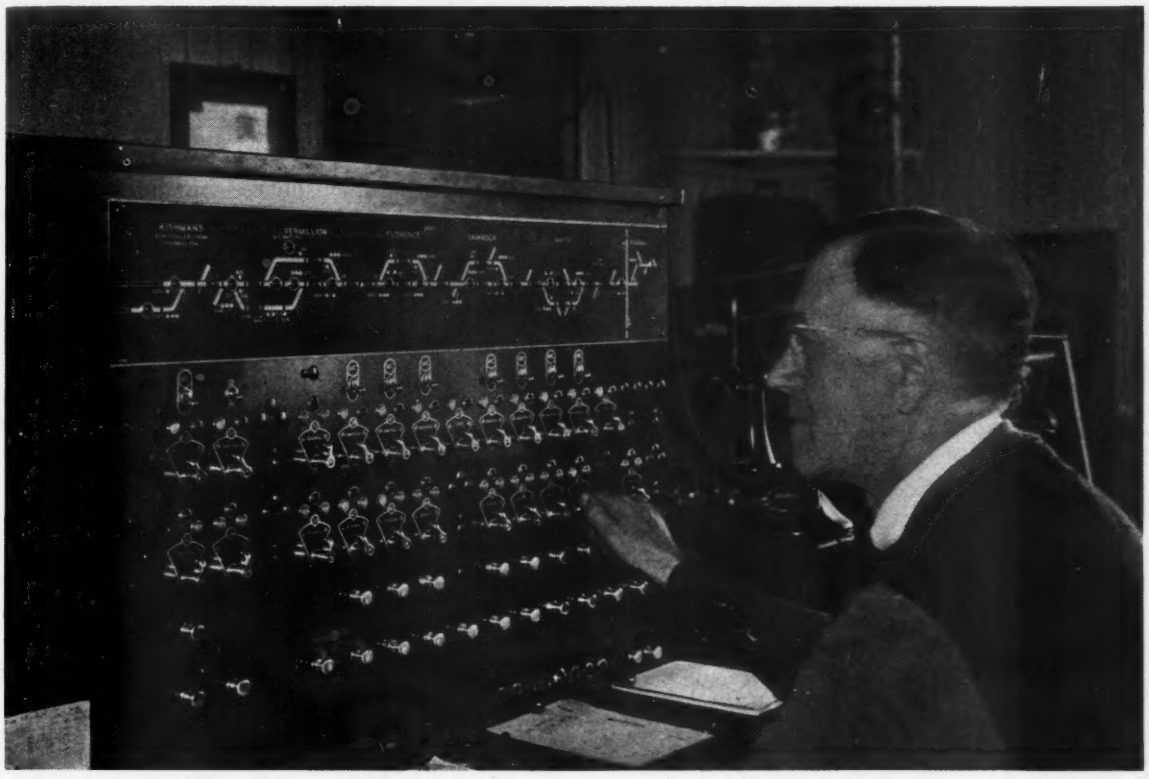
In some cases, restrictive conditions at tunnels can be corrected by relatively minor measures, such as the lowering of the floor to increase the vertical clearance or the "gouging" of the side walls to obtain greater width. Frequently, however, more drastic measures are necessary, in which event the problem may resolve itself into one of deciding whether (1) to enlarge the entire tunnel section, (2) to replace it with an open cut either on the existing alinement or a different one, or (3) to drive a new tunnel. This may not be an easy decision for there are many factors to consider.

Among some engineers there is a rule of thumb to the effect that the replacing of a tunnel with an open cut is the most economical expedient where the depth of the cut does not exceed 100 ft. However, when full consideration is given to all pertinent factors, it may be found that the open cut on a new alinement is the best solution, even where its maximum depth is much greater. A vital consideration these days is the necessity of avoiding interference with traffic and, regardless of how skilfully it is planned and executed, the work of enlarging a tunnel would be almost certain to entail traffic delays. This would also be true to some extent if an open cut were to be constructed on the original alinement, but if the cut is excavated on a new alinement practically the entire project can be carried out without traffic interference. This same argument also applies to the drilling of a new tunnel.

Another consideration is that the relationship that formerly prevailed between the cost of enlarging a tunnel section or of drilling a new tunnel and that of replacing it with an open cut has been revised in favor of the cut, due to the fact that modern methods and equipment have greatly reduced the cost of excavating work. In coming to a decision the engineer will also give consideration to the higher cost of maintenance of tunnels as compared with cuts, and the fact that the cut can be more easily enlarged to accommodate additional tracks. Obviously, there is a limit of depth beyond which the construction of an open cut is out of the question, and in such cases the decision must be between enlarging the old bore and of drilling a new one.

The facts are that many old tunnels are "squeeze points" in the transportation system, that they are particularly troublesome now when traffic is so heavy, and that, finally, there are sound reasons why the present is an opportune time to take such corrective measures as are found to be most economical and effective.

# Nickel Plate Installs C. T. C. on Busy Section of Single Track



*The C. T. C. Control Machine in "GC" Office*

**Complete arrangements of signal aspects help save train time—Directional track-occupancy indications on control panel for all main tracks and passing tracks**

THE New York, Chicago & St. Louis has a program of centralized traffic control installations on various sections of single track. The portion of this railroad which handles the heaviest traffic, i. e., between Buffalo, N. Y., and Arcadia, Ohio, is made up of sections of double track, with intervening sections of single track. For example, double track extends from Buffalo 49 miles to BM Tower, Brocton, N. Y.; for 38 miles from Thornton Jct. to Madison, Ohio; for 47 miles from Euclid, Ohio, through Cleveland, to Kishmans; and from Kimball for 45 miles through Bellevue to Arcadia, Ohio.

In order to increase the capacity of the intervening sections of single track, a program was started two years ago to install C. T. C. on the single track section of 15 miles between Westfield, N. Y., and North East, Pa.; 20 miles between Hadley and So. Whitley, Ind.; in addition to 21.6 miles between Kishmans, Ohio, and Kimball, completed in 1942. This last mentioned project is typical of the others previously completed as well as those contemplated with reference to train operations and construction features, and therefore the following discussion is confined to the Kishmans-Kimball installation.

### Track Layouts and Facilities

Color-light A. P. B. signaling has been in service since 1927 on the single track between Kishmans and Kimball. The switch at the end of double track at Kishmans was equipped several years ago with a spring and buffer mechanism, and later also with a mechanical facing-point lock. The switch at the end of double track at Kimball has for many years been included in a mechanical interlocking at the crossing with the Baltimore & Ohio. The two switches at the lap at "GC" are included in a mechanical interlocking which has been in service for many years, and since 1930, the switch at the west end of the eastward siding has been equipped with an electric switch machine and semi-automatic signals, controlled remotely from "GC." Although no power machine was in service at the east end of the westward siding, the signals were controlled remotely from "GC" to direct trains to enter or depart at this hand-throw switch.

A mechanical interlocking had been in service at Shinrock to operate the switch and signals at the east end of the passing track. Since 1930, the switch at the west end has been equipped with a power machine which, together with the signals, was controlled remotely from Shinrock tower.

### Changes When C. T. C. Was Installed

As a part of the installation of the centralized traffic control, a new power switch machine was installed at the east end of the passing track at Shinrock, thus replacing the mechanical interlocking. The existing remotely controlled power switch and signals at the west end of Shinrock were included in the new C. T. C. control. Also, power switches were installed at both ends of the passing tracks at Florence and Avery.

At "GC," the mechanical interlocking, including the two switches at the lap, was left in service, because the new C. T. C. control machine is also located in this office. The power switch and signals at the west end of "GC," which were formerly remotely controlled, are now operated from the C. T. C. machine, as also are a new power switch and the existing signals at the east end of "GC."

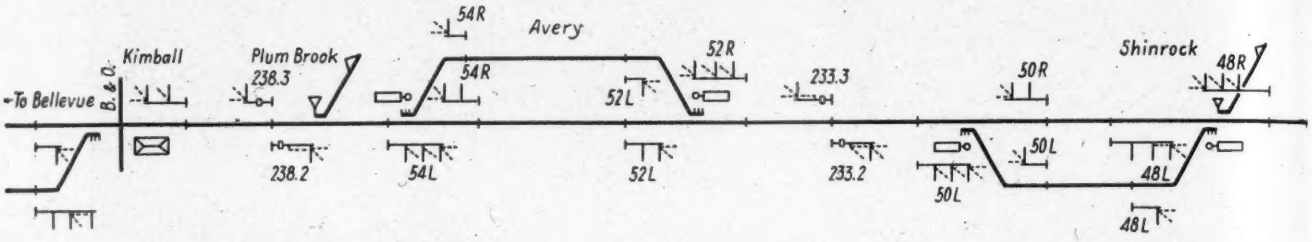
Also as a part of the C. T. C. project, the signals at the switches were re-arranged as required with additional aspects, and dwarfs were installed for leave-siding signals. Also the intermediate signals were relocated to provide proper braking distance, all being located at double locations except for the set between Kishmans and the east end of "GC," this pair being staggered 1,400 ft. in order to provide a better approach view, because of curves. In general the intermediate automatic blocks are spaced a minimum of 10,000 ft.

Between Kishmans and Kimball, the railroad traverses rolling prairie, with no long steep grades or curvature sharp enough to require reductions from normal train speeds. The turnouts at the ends of double track and at the ends of the passing tracks are No. 18 with 30-ft. points, except that the turnout at the east end of "GC" is a No. 11, which will be replaced as soon as practicable.

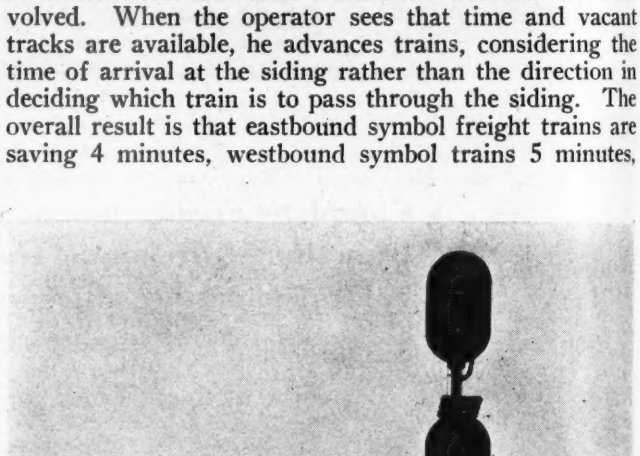
An important point with respect to the train time saved is that only five of the power switches now in the C. T. C. were formerly operated by hand-throw stands, these including the two at Florence, the two at Avery and the one at the east end of "GC." To a major extent, therefore, the saving in train time has been the result of authorizing train movements by signals, the indications of which supersede time tables and train orders.

Prior to 1940, the average number of trains operated daily in this territory ranged from 20 to 25. During the first six months of 1942, the traffic increased to a maximum of about 54 trains daily, including 8 passenger trains, 30 symbol freight trains and about 10 third class freight trains. Since the centralized traffic control was placed in service in September, 1942, the maximum has risen to 62 trains daily, including 8 passenger, 32 symbol, and 12 third class trains. A large percentage of these trains are operated over the Kishmans-Kimball section in two peak periods, between 5 a. m. and 11 a. m., and between 3:30 p. m. and 8 p. m.

Under the previous train order operation, numerous delays were incurred, especially by the third class trains, simply because there was no means for changing orders quickly enough to take advantage of the track which might be available. On the other hand, with the C. T. C. in service, the operator in charge of the control machine is informed by his illuminated diagram of the location, direction, and progress being made by each train, whether on the main line or on any passing track. Furthermore, in view of the fact that no train stops are required to operate hand-throw switches, a train can be advanced out of one siding into another in about 12 to 15 minutes less time than if hand-throw stands were involved. When the operator sees that time and vacant tracks are available, he advances trains, considering the time of arrival at the siding rather than the direction in deciding which train is to pass through the siding. The overall result is that eastbound symbol freight trains are saving 4 minutes, westbound symbol trains 5 minutes,




**Track and Signal Diagram of the Centralized Traffic**



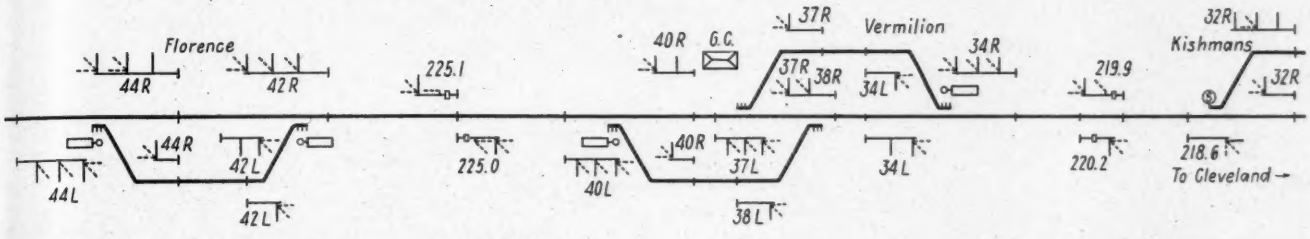
**Eastward Signal at West End of Avery**

eastbound third class trains 24.4 minutes, and westbound third class trains 23 minutes. Although only five of the switches now power-operated were previously hand-operated, an average of 17 train stops are eliminated daily.

## Signaling of Passing Tracks

As a part of the C. T. C. project, each passing track has been track circuited. If a passing track is unoccupied, when the entering switch is reversed and the home signal is cleared for an approaching train to enter, the aspect is red-over-yellow-over-red, Medium Speed, as applying in an interlocking according to A. A. R. Rule 286. In this instance, the approach signal displays the yellow-over-green Approach-Medium aspect, Rule 282. Thus the engineman of an approaching train has information which permits him to bring his train up to and through the No. 18 turnout at the speed for which these turnouts are designed, rather than pulling into a passing track at restricted speed, prepared to stop short of train or obstruction. With the exception of the westward siding at "GC," the sidings are longer than the average length of freight trains, so that trains can be brought to a stop from a speed of 35 m. p. h., before reaching the leaving end of the siding. Thus the No. 18 turnouts, together with the signaling arrangement, save considerable time for trains when entering passing tracks.

If a passing track is occupied and a second train of the same direction is to enter, the aspect is red-over-red-over-yellow, restricting, Rule 290. No signal can be displayed for a train to enter a passing track if a train of an opposing direction is already occupying that passing track, or if a signal for an opposing movement is displayed. If such a move must be made in case of emergency, special instructions are required.




**Control Territory Between Kishmans and Kimball**

## Four-Aspect Leave-Siding Signals

The leave-siding dwarfs are color-light type signals, with a yellow unit at the top, a green unit in the center and a red unit at the bottom. A single red is the Stop aspect, Rule 292. A single green light is the slow-clear aspect, indicating proceed, slow speed within interlocking limits, Rule 287 Fig. C. This green aspect is displayed when the signal is lever-controlled and two or more automatic blocks ahead are unoccupied. Therefore, after an engineman knows that the rear of his train has passed through the turnout, the speed can be accelerated.

A yellow-over-red is the Slow-Approach aspect, indicating proceed, preparing to stop at next signal, Rule 288. This aspect is displayed when the signal is lever-controlled, with the first automatic block unoccupied but with the second block occupied by a train of the same direction. The single yellow is the Restricting aspect, Rule 290, indicating proceed at restricted speed, prepared to stop short of train or obstruction. This aspect is displayed when the signal is lever-controlled and the automatic block ahead is occupied by a train of the same direction. The objective of this practice is to allow a train which is waiting on a siding for a train of the same direction to pass, to get underway while the leading train is receding in the first automatic block, rather than waiting until the leading train clears the first automatic block.

The special arrangement of color units, to place the green between the yellow and the red, permits the display of the yellow-over-red aspect, with these lamps far enough apart to display a distinctive aspect which is sufficiently clear for the short range.

The length of the automatic block between the signals at the two ends of some of the passing tracks is less than that adopted as minimum train stopping distance. When a train has accepted and passed a station-leaving main line signal, such as 37L at "GC," that signal displays the red-over-red Stop aspect; the next signal in approach, No. 40L, displays the Approach aspect which is a single yellow, and the second signal in approach, No. 225.0, displays the Advance Approach aspect, yellow-over-yellow, which indicates stop at second signal, Rule 282A. Thus signal 225.0 can display any one of five aspects. With the lamps in the lower "arm" extinguished, the lamps in the upper "arm" can display a green for Clear, a yellow for Approach, or a red for Stop and then Proceed. With lamps in both arms lighted, a yellow-over-green aspect is the Approach Medium, and the yellow-over-yellow is the Advance Approach.

On a signal such as 225.1, there is no occasion to display the yellow-over-yellow Advance-Approach, because the block between the signals at the two ends of Florence is longer than train stopping distance. Signal 225.1, however, can display the yellow-over-green Approach-

**The Passing Track Switches Are Operated by Power Machines**

Medium aspect; therefore the lower "arm" is a normally extinguished single lamp unit which can be lighted green.

If the main track in station limits is occupied and the operator wants to close in a second train of the same direction, the station-entering signal can be lever-controlled to display a Call-on aspect, red-over-red-over-yellow, Restricting, Rule 290, indicating proceed at restricted speed prepared to stop short of train or obstruction.

### Signaling at Spring Switch

At the spring switch at Kishmans, circuit controllers check the normally-closed position of the switch point and the normal position of the lock plunger to determine that it is through the lock rod but that the overthrow is not too far so that it would not be withdrawn automatically during a trailing move over the turnout. Circuits through these controllers prevent the display of a Proceed aspect on any of the three signals if the switch is not normal or if the lock plunger is not in the proper position.

A dwarf-type color-light switch lamp with aspects displayed in both directions is located on the south side of the facing point of the spring switch. When the switch is in the normal position and the locking plunger is in the proper position, this switch lamp displays the green aspect in both directions. If the switch is not normal or if the lock plunger is not in the proper position, the green light is extinguished and the red light is illuminated.

The purpose for using the switch lamp, in addition to the signals, is to give enginemen information to know whether an improper position of the switch or lock is the factor which is causing a signal to display a Stop aspect. For example, if an eastbound train encounters a Stop-and-then-Proceed aspect on signal 218.6, and a green aspect is being displayed on the switch lamp, he knows that there is no occasion for him to inspect the switch, and that the signal is displaying a restrictive aspect because the block is occupied by a preceding train, or that a rail is broken, etc. Therefore, he is authorized to proceed at restricted speed, after having stopped at the signal. On the other hand, if the switch lamp is displaying a red light, the engineman or a trainman inspects the switch. If it is being held open by some obstruction, this is removed so that the switch can return to its normal position and be locked automatically. If a westbound train is stopped by a Stop aspect on either of the westward signals at Kishmans, and a red light is being displayed by the switch lamp, the engineman or a member of the train crew inspects the switch. Thus when the switch or lock are not properly positioned, the switch lamp serves to call attention to this fact, thereby localizing the factor which may be holding the signals at their most restrictive aspect, and in many cases saving a second stop for the trainmen to examine the spring switch.

### The C. T. C. Control Machine

The C. T. C. control machine for the Kishmans-Kimball territory is located in the office at "GC," adjacent to the mechanical interlocking which operates the two switches at the lap. The levers for controlling the interlocking signals at the lap were retained in the mechanical interlocking machine, and these levers must be reversed preliminary to the clearing of such signals, but the final clearing control is effected by levers in the C. T. C. machine, in order to establish lockout circuits to prevent signals being set at Stop by coding an opposing signal.

The transmission of controls from the office to the field stations, as well as the return of indications, is accomplished by the U. S. & S. Co. time code system using two line wires. The control machine has 9 levers for switches, 12 levers for signals and 2 levers for control of electric locks on hand-throw main line switches. One hand-throw switch is located within semi-automatic signal limits at the east end of Shinrock, and the other is at an outlying point known as Plum Brook between Avery and Kimball. The release of each of these locks is by direct lever control through the line coding system to the field station nearest to the switch and from there on a line wire circuit to the switch. Each switch lock is indicated in the C. T. C. machine as "locked" or "unlocked."

A new and interesting feature of the C. T. C. machine is that the track-occupancy lamps indicate the direction in which a train has entered the block. These lamps are normally extinguished, being lighted red by eastward train movements, or lighted white by westward train movements. This special control feature is effected by stick relays in the C. T. C. machine storage racks. The directional track-occupancy indication does not apply to the OS switch detector sections, but this practice does apply to all other main track sections, as well as to passing tracks.

The main track between two stations is indicated by two track-occupancy lamps, one corresponding to the section between a switch and the intermediate signal location, and the other lamp corresponding to the section between the intermediate signals and the next switch. The control for each of these lamps is initiated through contacts of a relay in series with the signal HDR automatic line wire circuit, so that no extra line wires are required to provide the two separate track-occupancy indications of each half of a station-to-station block. A point of interest is that the track-occupancy indication lamps for a station-to-station block are separately controlled so that the operator knows when the head end of a train passes the intermediate signal location, thus affording information concerning the progress of a train, rather than limiting the information to occupancy of the station-to-station block as a whole.

This centralized traffic control project was planned and constructed by the signal forces of the N. Y. C. & St. L., under the direction of S. G. Raber, superintendent of telegraph and signals, the major items of equipment being furnished by the Union Switch & Signal Company.

### *Why Honest Reformers are so Dangerous*

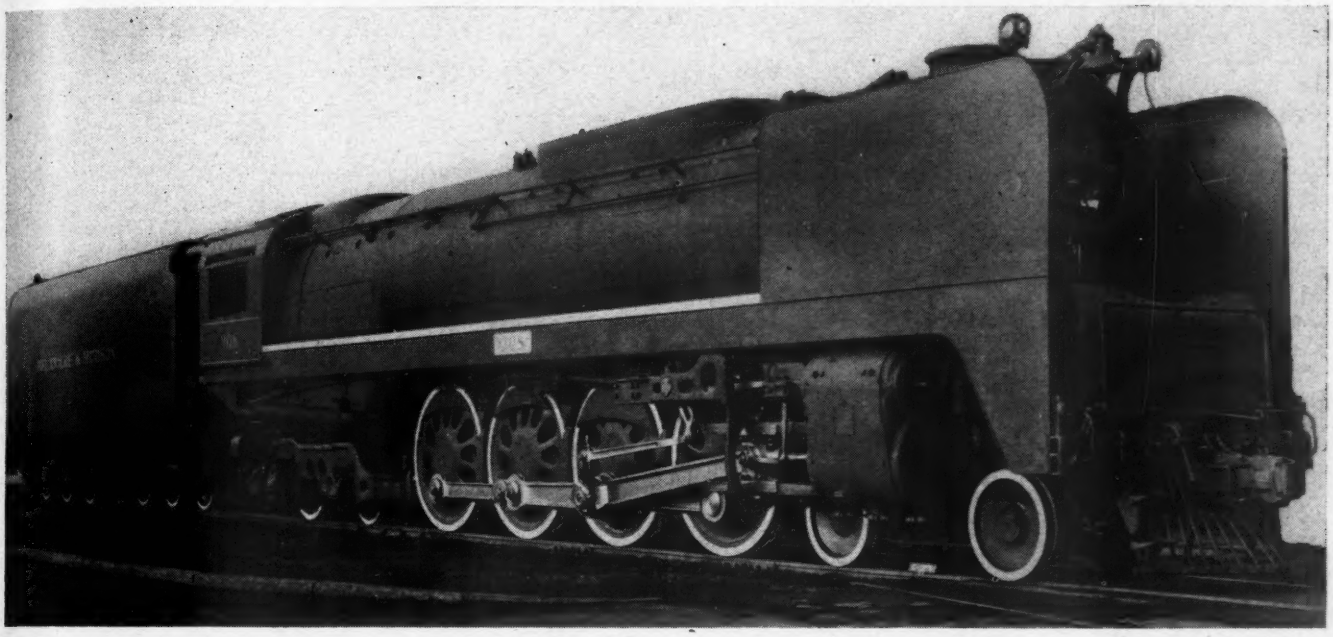
There is no instance on record of an ignorant man who, having good intentions and supreme power to enforce them, has not done far more evil than good. And whenever the intentions have been very eager and the power very extensive, the evil has been enormous. But if you can diminish the sincerity of that man, if you can mix some alloy with his motives, you will likewise diminish the evil which he works. If he is selfish as well as ignorant, it will often happen that you may play off his vice against his ignorance, and by exciting his fears restrain his mischief.

If, however, he has no fear, if he is entirely unselfish, if his sole object is the good of others, if he pursues that object with enthusiasm, upon a large scale, and with disinterested zeal, then it is that you have no check upon him, you have no means of preventing the calamities which, in an ignorant age, an ignorant man will be sure to inflict.

*—H. T. Buckle in His "History of Civilization in England"*

# D. & H. 4-8-4 Type Freight Power

**Alco-built units, for service between Oneonta, N. Y., and Rouses Point are of striking appearance because of simplicity in design—Tractive force 62,040 lb.**



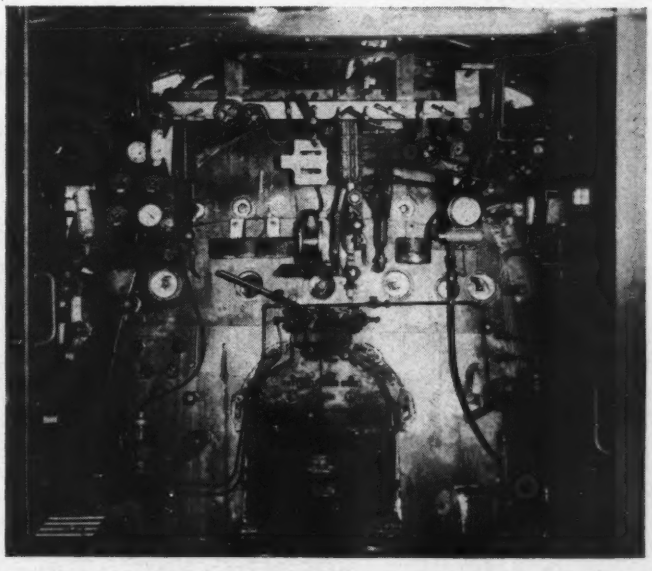
IN APRIL of this year the Delaware & Hudson placed in service between Oneonta, N. Y., and Rouses Point, N. Y.—a distance of 243 miles—15 locomotives of the 4-8-4 type which were built by the American Locomotive Company at Schenectady, N. Y. These locomotives have a rated tractive force of 62,040 lb. with 75-in. driving wheels.

The weight per axle was limited to 68,000 lb. and the total weight on drivers is 270,000 lb.

### Engine Bed and Running Gear

The foundation of these locomotives is a cast steel bed supplied by the General Steel Castings Corporation. Cast integral with the bed are the front deck plate, air-compressor brackets, engine-truck center plate, cylinders, back cylinder heads, guide-yoke crossties, air reservoirs, coil spring seats, brake-hanger brackets, footplate and boiler supports. The engine-trucks have the Alco geared roller centering device with an initial resistance of 15 per cent in the first 1 in. of travel and a constant resistance of 33⅓ per cent throughout the remaining lateral-motion range. The engine-truck centers are located 2 in. ahead of the cylinder centers for clearance on 20-deg. curves. The trailer trucks are the General Steel Castings outside bearing type. The front, main and intermediate driving wheels are equipped with the Alco lateral cushioning device, having ⅜ in. lateral at the main and intermediate wheels and ⅝ in. at the front. The details of the axle, bearing and wheel equipment of both engine and tender are included in a table.

Crossbalancing is used at the main drivers, while the other driving wheels are statically balanced. The total weight of the reciprocating parts on one side of the locomotive is 2,130 lb., 25 per cent of which is balanced. The over-balance is equally distributed among the four wheels. The cylinders are 24½ in. bore by 32 in. stroke. Both the cylinders and the valve chambers are fitted with



**The cab has sliding rear doors—There are two seats on the left side**

Hunt-Spiller gun-iron bushings. The pistons, piston rings, valves, bull rings and packing rings are also Hunt-Spiller gun-iron.

An interesting detail with respect to the cylinders is the fact that the clearance volume is only nine per cent. The crossheads are of the alligator type with heat-treated cast-steel bodies, chrome-vanadium keys and Magnus bronze shoes. Both wrist pins and crank pins are medium carbon steel. The side and main rods are medium carbon steel with Magnus brasses. The driving rods are channeled.

Walschaert valve gear is used with Alco type G power reverse gear mounted on the bed. The 12-in. piston valves have 7½-in. travel.

The spring rigging is of the same general design as the J-95 4-6-6-4 type locomotives, built for the D. & H. in 1940,* with continuous equalization on each side from the front driver to rear trailer and utilizing coil springs at the dead ends of the rigging system.

## Lubrication

Mechanical lubrication is used on cylinders, valves, stoker, combination levers, valve-stem and main guides, engine-truck center pin and rockers, hub liners, shoes and wedges, trailer-truck center pin, radial buffer and trailer wheel flanges. A 36-pint, 16-feed lubricator is located on the right side and a 32-pint, 14-feed unit on the left side.

Grease lubrication is used for bell trunnions, brake levers, main and side rods, eccentric rod, reverse-shaft bearings, spring hangers, throttle rigging and drawbar pins.

## The Boiler

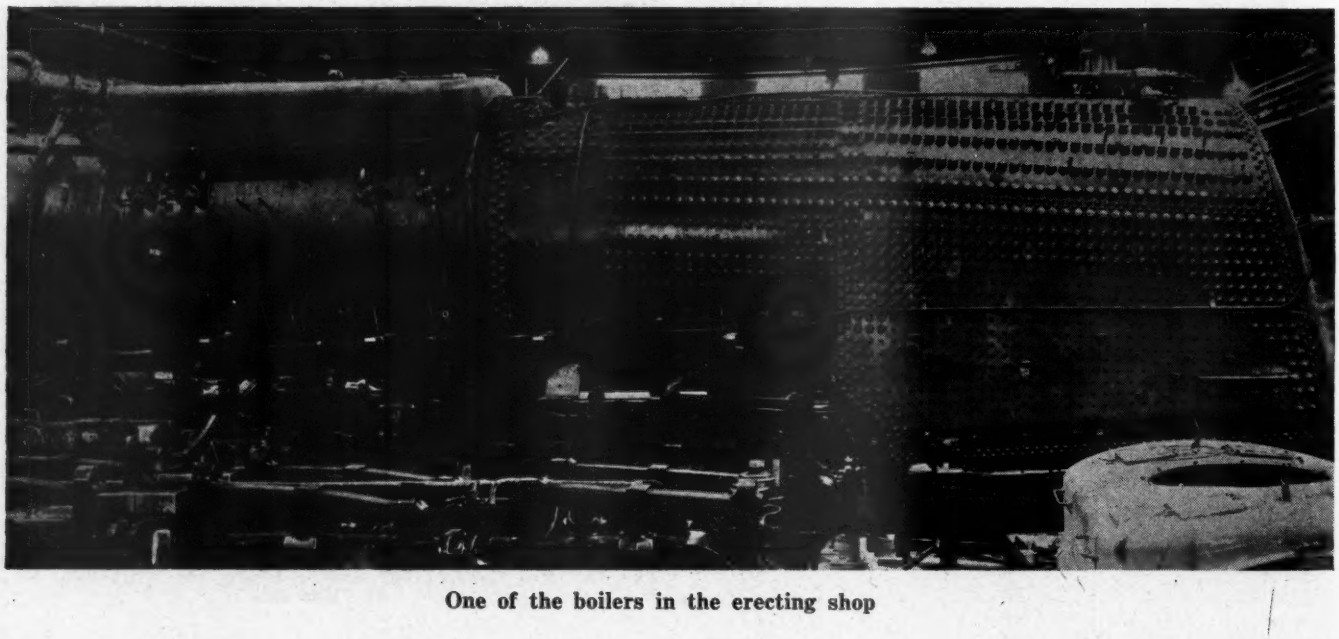
The boiler is the conical type having an inside diameter of 84¼ in. at the first ring and an outside diameter of 98 in. at the third ring. The barrel courses are fabricated from carbon steel with butt joint, multiple-riveted longitudinal seams. The Elesco Type A superheater has 58 units in 5½-in. No. 8 flues. In addition, there are 199 2¼-in. No. 12 tubes. The superheater is equipped with a damper cylinder. An American multiple throttle is incorporated in the header.

The grate area is 96.2 sq. ft. The fuel, bituminous coal, is fed to Firebar grates by a Standard HT stoker, with the stoker engine on the tender. The fire door is the Franklin No. 8.

The fireboxes are completely welded. Seal welding is used at the throat-sheet connections to the third ring, along part of the roof-sheet seam, along the longitudinal seams between the roof and side sheets, and at the firebox corners. Welding is also used on the smokebox liner and the seams around the flattened smokebox sides, on the seam between the outside firebox sheets and back head, and between the back head and door sheets. The door sheets are built up to a thickness of ⅝ in. by 4¾ in. diameter at the arch-tube openings by means of welding.

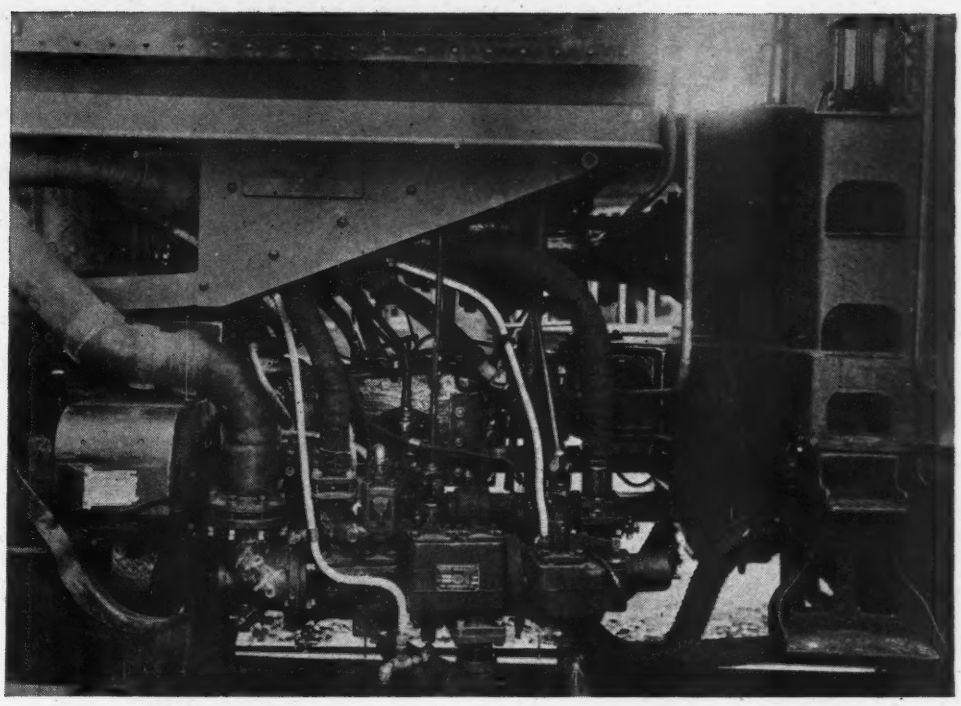
**Axles, Bearings, Wheel Centers and Tires**

| | Axles | | | Wheel Centers | | | | Wheels or Tires | |
|---|---|---|---|---|---|---|---|---|---|
| Location | Material | Bearings | Journal size, in. | Type | Material | Manufacturer | Diameter in. | Diameter in. | Manufacturer |
| Front truck.... | Carbon steel | SKF roller | 7.870 diam. | .... | .... | .... | .. | 36 | Bethlehem Steel Co. |
| Drivers, main.. | Carbon steel | SKF roller | 13.750 diam | Boxpok | Cast steel | General Steel Castings Corp. | 68 | 75 | Midvale Co. |
| Drivers, inter... | Carbon steel | SKF roller | 12.625 diam. | Boxpok | Cast steel | General Steel Castings Corp. | 68 | 75 | Midvale Co. |
| Drivers, front and back,.... | Carbon steel | Plain | 11½x13 | Boxpok | Cast steel | General Steel Castings Corp. | 68 | 75 | Midvale Co. |
| Trailer, front... | Carbon steel | Plain | 7x14 | .... | .... | .... | .. | 36 | Armco |
| Trailer, rear... | Carbon steel | Plain | 9x14 | Boxpok | Cast steel | General Steel Castings Corp. | 38 | 45 | Midvale Co. |
| Tender trucks.. | Carbon steel | Plain | 7x14 | .... | .... | .... | .. | 36 | Bethlehem (7) Carnegie-Illinois (8) |



**One of the boilers in the erecting shop**

* For a description of these locomotives see page 207 of the August 10, 1940, *Railway Age.*



**Engine and tender connections as seen from the left side**

There is a complete installation of flexible staybolts in the combustion chamber of this boiler and the installation in the throat sheet is complete except for the bottom row. Flexible stays are also used in the breaking zones of the side sheets and in the two rows of the door-sheet-to-back-head connection.

The American arch is supported by five 4-in. arch tubes which are rolled into ported forged-steel sleeves at the throat-sheet ends. These sleeves extend through the water space and are threaded and welded to the inside and outside sheets. The outer end is closed with square threaded plugs. This design of arch tube and sleeve was developed by the Canadian Pacific and has been used on that road for several years.

Water is fed to the boilers by a Hancock Type W non-lifting injector located on the right side and an Elesco exhaust-steam injector on the left side. The safety valve equipment consists of three 3-in. Consolidated-Ashcraft-Hancock valves.

## The Cab

The cab is supported by brackets to the firebox. The firebox is carried on four expansion shoes moving in an oil bath. The cab is built of No. 10 gage steel, wood lined. Safety glass is used in the metal-sash windows. Prime windshields and clear-vision windows are part of the cab equipment. There is one seat on the right side and two seats on the left side.

An interesting feature of these cabs is the sliding rear doors which give cold-weather protection without hot weather discomfort. The gages on the left side of the back head are combined in the same type of air-cooled, illuminated case as used on the J-95 locomotives.

The brake equipment is No. 8 ET furnished by the New York Air Brake Company with remote-control relay valves and ET safety valves set at 68 lb. Two 8½-in. cross-compound compressors operating on superheated steam are mounted on the front end of the bed. Fin type radiators with sump reservoirs and automatic drain complete the compressor system. The total capacity of air storage is 89,062 cu. in. The foundation driver brake is the equalized type with brake shoes at the rear of the wheels. The braking ratio is 60 per cent at 50 lb. cylinder pressure.

Other locomotive equipment consists of King Sanders and operating valves; Sweeney type exhaust nozzles; Valve Pilot speed recorder; Franklin drawbars, safety bars and E-2 radial buffer between the engine and tender; Okadee blow-off and cylinder cocks, and Talmage water gages.

The appearance of these locomotives is greatly enhanced by clean cut exterior design with long covers over sand box and dome and the runboard design blended in

**General Dimensions, Weights and Proportions of the Delaware & Hudson 4-8-4 Type Locomotives**

| | |
|---|---|
| Railroad | D. & H. |
| Builder | American Locomotive Co. |
| Type of locomotive | 4-8-4 |
| Road class | K-62 |
| Road numbers | 300–314 |
| Date built | April, 1943 |
| Service | Fast freight |
| Rated tractive force, engine, 85 per cent, lb. | 62,040 |
| Weights in working order, lb.: | |
| On drivers | 270,000 |
| On front truck | 92,500 |
| On trailing truck | 107,500 |
| Total engine | 470,000 |
| Tender (two-thirds loaded) | 298,000 |
| Wheel bases, ft.-in.: | |
| Driving | 19-9 |
| Engine, total | 47–1 |
| Engine and tender, total | 91–7 |
| Driving wheels, diameter outside tires, in. | 75 |
| Cylinders, number, diameter and stroke, in. | 2–24½x32 |
| Valve gear, type | Walschaerts |
| Valves, piston type, size, in. | 12 |
| Maximum travel, in. | 7½ |
| Boiler: | |
| Steam pressure, lb. | 285 |
| Diameter, first ring, inside, in. | 84¼ |
| Firebox length, in. | 144–1/32 |
| Firebox width, in. | 96–3/16 |
| Combustion chamber length, in. | 84 |
| Arch tubes, number and diameter, in. | 5–4 |
| Tubes, number and diameter, in. | 199–2¼ |
| Flues, number and diameter, in. | 58–5½ |
| Length over tube sheets, ft.-in. | 20–0 |
| Grate area, sq. ft. | 96.2 |
| Heating surfaces, sq. ft.: | |
| Firebox and comb. chamber | 427 |
| Arch tubes | 55 |
| Tubes and flues | 3,995 |
| Evaporative, total | 4,477 |
| Superheater | 1,473 |
| Combined evap. and superheater | 5,950 |
| Tender: | |
| Type | Rectangular "U" |
| Water capacity, gals. | 20,000 |
| Coal capacity, tons | 25 |
| Trucks | 6-wheel |

with that of the side plates and front-end trim. The side plates function to keep smoke and steam from obscuring the engineman's view. The engine number is in a lighted panel at the center of the runboard. The classification lamps are mounted on brackets of sufficient height to be visible over the side plates to a man on the ground.

## The Tender

The tender is of the rectangular tank design with a General Steel Castings Corporation water-bottom frame. It follows the same general design as those built for the Class J-95. The capacity is slightly less, being 20,000 gallons of water and 25 tons of coal. The principal difference between this and the tender for the earlier class is in the height of the water space.

The trucks are the General Steel Castings Corporation six-wheel equalized type with 7-in. by 14-in. journals, 36-in. rolled-steel wheels, Miner rocking roller-type side bearings, and A. S. F. clasp brakes. Miner draft rigging is used with National Malleable couplers and A. A. R. swivel yokes. The flexible connectors for air brake, air signal, steam heat, and stoker engine steam lines between engine and tender are the Barco type 3VX. The Vapor connector is used at the rear of the tender.

### Partial List of Materials and Equipment on the Delaware & Hudson 4-8-4 Type Locomotives

| | |
|---|---|
| Engine bed; trailing trucks; bumpers | General Steel Castings Corp., Eddystone, Pa. |
| Crosshead castings | Adirondack Foundries & Steel Co., Watervliet, N. Y. |
| Driving-box compensators and snubbers; radial buffers | Franklin Railway Supply Co., Inc., New York |
| Engine-truck wheels | Bethlehem Steel Co., Bethlehem, Pa. |
| Trailing wheels, front | Armco Railroad Sales Co., Middletown, Ohio |
| Wheel centers—driving and back-trailer | General Steel Castings Corp., Eddystone, Pa. |
| Driving- and trailing-truck tires | Midvale Co., Nicetown, Philadelphia, Pa. |
| Lateral cushioning device; Slidguide attachment; engine trucks | American Locomotive Co., New York |
| Bearings | SKF Industries, Philadelphia, Pa. |
| Driver brake | New York Air Brake Co., Watertown, N. Y. |
| Brake shoes | American Brake Shoe Company, New York |
| Driving-box lubricators | Franklin Railway Supply Co., Inc., New York |
| Dust guards | MacLean-Fogg Lock Nut Co., Chicago |
| Pilot coupler | National Malleable and Steel Castings Co., Cleveland, Ohio. |
| Springs, driving and truck | Crucible Steel Co. of America, New York<br>Union Spring & Mfg. Co., New Kensington, Pa. |
| Spring clip pads | Fabreeka Products Co., Boston, Mass. |
| Bronze castings | Magnus Metal Div., National Lead Co., New York |
| Running boards | Carnegie-Illinois Steel Corp., Pittsburgh, Pa. |
| Boiler steel | Carnegie-Illinois Steel Corp., Pittsburgh, Pa.<br>Jones & Laughlin Steel Corp., Pittsburgh, Pa.<br>Lukens Steel Co., Coatesville, Pa. |
| Lagging | Johns-Manville Sales Corp., New York |
| Staybolt iron | Ewald Iron Co., Louisville, Ky.<br>Jos. T. Ryerson & Son, Inc., Chicago<br>Ulster Iron Works, Dover, N. J. |
| Flexible and water-space staybolts | American Locomotive Company, New York<br>Flannery Bolt Co., Bridgeville, Pa. |
| Boiler tubes | Pittsburgh Steel Corp., Pittsburgh, Pa.<br>Republic Steel Corp., Massillon, Ohio |
| Superheater flues; firebrick tubes | National Tube Co., Pittsburgh, Pa. |
| Grates | Waugh Equipment Co., New York |
| Stoker | Standard Stoker Co., Inc., New York |
| Firebrick | American Arch Co., Inc., New York |
| Fire doors | Franklin Railway Supply Co., Inc, New Fork |
| Washout and arch-tube plugs | Huron Mfg. Co., Detroit, Mich. |
| Lock washers | Positive Lock Washer Co., Newark, N. J. |
| Headers with throttle assembly | American Throttle Co., New York |
| Smokebox inspection plugs; blower nozzle | T-Z Railway Equipment Co., Chicago |
| Damper cylinder; exhaust-steam injectors; superheater pipes | The Superheater Company, New York |
| Pipe fittings | Crane Co., Chicago |
| Wrought-iron pipe | A. M. Byers Co., Pittsburgh, Pa. |
| Copper pipe | The American Brass Company, Waterbury, Conn. |
| Non-lifting injectors; coal sprinkler; universal joints | Locomotive Equipment Division of Manning, Maxwell & Moore, Inc., Bridgeport, Conn. |
| Blow-off cocks and cylinders | The Okadee Company, Chicago |
| Gauge cocks; water gauges | Nathan Manufacturing Co., New York<br>Talmadge Manufacturing Co., Cleveland, Ohio |
| Flexible joints between engine and tender | Barco Manufacturing Co., Chicago |
| Packing | The Garlock Packing Company, Palmyra, N. Y.<br>Johns-Manville Sales Corp., New York |
| Cylinder and valve bushings | Hunt-Spiller Manufacturing Corporation, Boston, Mass. |
| Asbestos tubing; Wovenstone | Union Asbestos & Rubber Co., Chicago |
| Piston-rod and valve-stem packing | Paxton-Mitchell Co., Omaha, Neb. |
| Reverse gears | American Locomotive Co., New York |
| Mechanical lubricators | Detroit Lubricator Co., Detroit, Mich.<br>Nathan Manufacturing Co., New York |
| Flange oiler shoes | Detroit Lubricator Co., Detroit, Mich. |
| Grease fittings | The Prime Manufacturing Co., Milwaukee, Wis. |
| Cab seats | Hevw o od-Wakefield Co., Gardner, Mass. |
| Windows and windshields | The Prime Manufacturing Co., Milwaukee, Wis. |
| Floor plates | Jos. T. Ryerson & Son, Inc., Chicago |
| Safety valves | Locomotive Equipment Division of Manning, Maxwell & Moore, Inc., Bridgeport, Conn. |
| Steam-heat gauge; steam gauges | Ashton Valve Co., Boston, Mass. |
| Steam-heat reducing valve | The Leslie Co., Lyndhurst, N. J. |
| Sand spreaders | Graham-White Sander Corp., Roanoke, Va. |
| Sander | U. S. Metallic Packing Co., Philadelphia, Pa. |
| Headlights and generator; back-up, classification and marker lamps | The Pyle-National Company, Chicago |
| Speed recorder | Valve Pilot Corporation, New York |
| Whistle and operating valve | Viloco Railway Equipment Co., Chicago |
| Bell ringer | Railway Service and Supply Corp., Indianapolis, Ind. |
| Tender: | |
| Trucks; frames | General Steel Castings Corp., Eddystone, Pa. |
| Wheels | Bethlehem Steel Co., Bethlehem, Pa.<br>Carnegie-Illinois Steel Corp., Pittsburgh, Pa. |
| Clasp and body brakes | American Steel Foundries, Chicago |
| Tank valves | T-Z Railway Equipment Co., Chicago |
| Steam-heat coupler | Vapor Car Heating Co., Inc., Chicago |
| Draft gear | W. H. Miner, Inc., Chicago |
| Couplers | National Malleable & Steel Casting Co., Cleveland, Ohio |

## Failure to "Swap Horses" a Sign of Political Decay

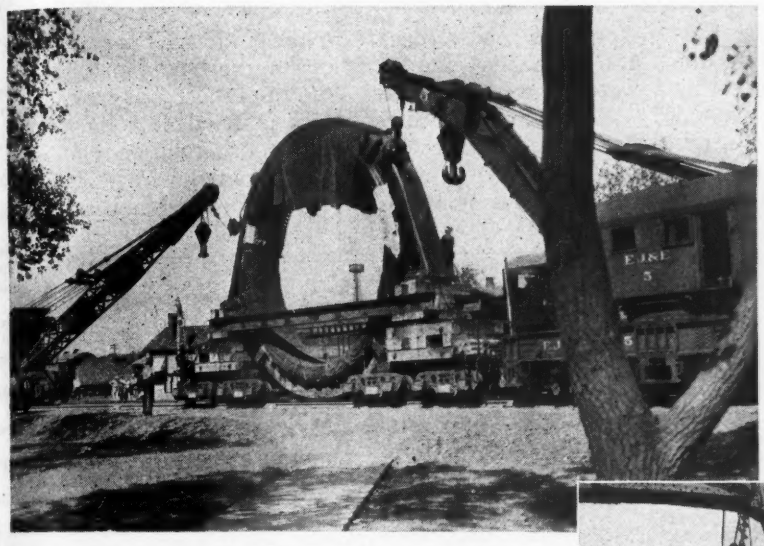
The end of the [Roman] republic began with the extension of office terms of consuls and dictators. . . . The "end" was *marked* by those extensions; the extensions were *symptoms,* not *causes.* A democracy does not begin its decline by failing to swap horses; it fails to swap because it has declined. When a community is in sound "democratic" health it will neither desire nor accept the "peerless leader"; it is only when its health is sapped by some cause that it will accept him. . . .

The stoutest advocates of "non-swapping" today are also those who are the most eloquent defenders of "democracy" and the most voluble opponents of "fascism"! Which seems to possess a slightly humorous tinge.

*—Thomas F. Woodlock in the Wall Street Journal*

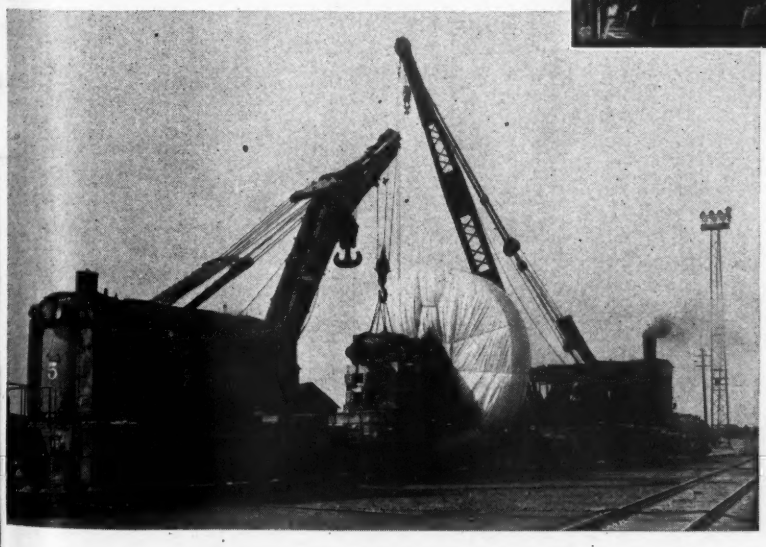
# Delivered Without Dismantling

**Two special shipments handled by the Chicago Outer Belt Line save six months delay in production at a tank armor plate plant**



**Giant Stator 28-Ft. in Diameter and Weighing 133 Tons, Loaded and Ready for Movement**

RATHER than completely dismantle a huge electric machine, transfer it piecemeal from one plant to another two miles away and then reassemble the machine, a procedure that would have required at least six months, a new tank armor plate plant in the Chicago area called upon the Elgin, Joliet & Eastern to undertake the transfer which was speedily handled in two special shipments. As a direct result of the expeditious handling of these two unusual consignments, the tank armor plate plant avoided a delay of six months in its production schedule, and the Iron Horse again demonstrated its ability to meet the extraordinary requirements of modern wartime transportation.



**The 147-Ton Rotor En Route**

The giant stator, 28-ft. in diameter and weighing 113 tons, was removed from its previous mill location, after an adjacent outer wall of the building had been removed. The stator was supported by heavy blocking and two heavy steel girder beams resting on truck assemblies of the largest type hot metal ladle car, since a standard railway car of sufficient capacity was not available. The movement was further complicated by the fact that the bed support-castings were below the center of gravity of the stator, and two cranes were required to steady the load and to prevent its tipping over, particularly when the shipment was moving around sharp curves. Furthermore, the bottom of the stator had a clearance of only two inches above the top of rail during the movement.

**ABOVE—Two Cranes Steadied the Load AT LEFT—The 147-Ton Rotor En Route**

The rotor (which, when the machine is assembled, fits inside the stator) is somewhat smaller in diameter, but weighs 147 tons. It was handled in much the same manner as the stator, except that the rotor was loaded with the shaft supported by suitable blocking resting on the truck assemblies. Both shipments were handled so carefully by the Chicago Outer Belt Line that the entire machine was reinstalled at the new site with a minimum of disturbance and delay.

# Tie Renewals 3.7 Per Cent Higher

**Data reported by A.R.E.A. shows increases in 1942 compared with the previous year, despite widespread loss of production and large use by army and navy**

DESPITE the difficulties encountered in the procurement of ties for maintenance, made more difficult by the demands of war-time construction by and for the army and navy, 70 railways in the United States and Canada inserted in renewals more ties per mile of maintained track in 1942 than in 1941, while 63 renewed less ties and one applied the same number. Of these 134 roads, 132 are in the United States and two are in Canada (the statistics for the Canadian National were not available at the time the report was made).

Those in the United States inserted 48,168,240 new ties and 447,988 second-hand ties, or a total of 48,616,228 ties, in replacement in 1942, compared with 46,875,815 in 1941, an increase of 1,740,413, or 3.7 per cent. The

## Statistics of Crosstie Renewals on Leading Railroads in the United States and Canada for the Calendar Year Ending December 31, 1942

| Road | Miles of maintained track occupied by crossties | Total number of new wooden crossties laid in replacement in 1942 | Number of wooden crosstie renewals per mile of maintained track | | Per cent of wooden crosstie renewals to all ties in tracks | | New wooden ties untreated (U) | | New wooden ties treated (T) | | Weighted average cost per new wooden crosstie | Cost of new wooden crosstie renewals per mile of maintained track | Cost of new wooden crosstie renewals per thousand equated gross ton-miles (cents) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1942 | 5 year average | 1942 | 5 year average | Per cent applied | Average cost†† | Per cent applied | Average cost†† | | | |
| **New England Region:** | | | | | | | | | | | | | |
| Bang. & Aroos. | 820.51 | 129,528 | 158 | 170 | 5.5 | 5.9 | 100 | $0.63 | .... | .... | $0.63 | $99 | 5.57 |
| B. & M. | 2,988.84 | 317,708 | 106 | 93 | 3.6 | 3.2 | 6.2 | 1.03 | 93.8 | $1.80 | 1.75 | 186 | 2.97 |
| C. N. R. (Lines in N. E.) | 248.91 | 31,511 | 127 | 155 | 4.1 | 5.0 | 17.9 | .67 | 82.1 | 1.34 | 1.22 | 154 | 5.01 |
| C. P. R. (Lines in Me.) | 216.79 | 13,026 | 60 | 65 | 2.0 | 2.2 | 0.4 | .66 | 99.6 | 1.63 | 1.63 | 98 | 0.94 |
| C. P. R. (Lines in Vt.) | 124.78 | 12,389 | 99 | 72 | 3.3 | 2.4 | .... | .... | 100 | 1.42 | 1.42 | 141 | 2.92 |
| C. Vt. | 495.67 | 26,273 | 53 | 82 | 1.8 | 2.9 | .... | .... | 100 | 1.44 | 1.44 | 77 | 1.39 |
| Me. Cent. | 1,231.05 | 175,345 | 142 | 168 | 4.7 | 5.5 | 45.7 | .92 | 54.3 | 2.00 | 1.51 | 215 | 6.39 |
| N. Y. Connecting | 25.90 | 5,773 | 223 | 312 | 7.1 | 9.9 | .... | .... | 100 | 2.51 | 2.51 | 559 | 2.92 |
| N. Y. N. H. & H. | 3,827.78 | 252,366 | 66 | 67 | 2.1 | 2.2 | .... | .... | 100 | 1.78 | 1.78 | 118 | 1.52 |
| Rutland | 490.68 | 22,602 | 46 | 48 | 1.5 | 1.6 | .... | .... | 100 | 1.46 | 1.46 | 67 | 2.09 |
| Total | 10,470.91 | 986,521 | 94 | 97 | 3.1 | 3.2 | 23.8 | .76 | 76.2 | 1.78 | 1.54 | 145 | 2.43 |
| **Great Lakes Region:** | | | | | | | | | | | | | |
| Ann Arbor | 403.27 | 37,374 | 93 | 91 | 3.1 | 3.0 | .... | .... | 100 | 1.56 | 1.56 | 145 | 3.53 |
| Camb. & Ind. | 56.19 | 13,221 | 235 | 312 | 8.6 | 11.6 | 3.2 | 1.08 | 96.8 | 2.39 | 2.35 | 553 | 16.98 |
| D. & H. | 1,395.77 | 219,277 | 157 | 127 | 5.1 | 4.1 | .... | 1.25 | 99.8* | 1.57 | 1.56 | 246 | 2.19 |
| D. L. & W. | 2,261.87 | 224,356 | 99 | 65 | 3.4 | 2.3 | .... | .... | 88.9* | 1.93 | 1.93 | 191 | 2.21 |
| Det. & Mack. | 291.35 | 26,799 | 92 | 117 | 3.1 | 3.9 | 50.8 | .62 | 49.2 | .85 | 0.73 | 67 | 7.22 |
| D. & T. Shore Line | 151.28 | 21,218 | 140 | 116 | 4.7 | 3.9 | .... | .... | 98.2 | 1.89 | 1.89 | 265 | 5.35 |
| Erie (Incl. C. & E.) | 4,749.69 | 409,136 | 86 | 85 | 2.9 | 2.9 | ....† | .88 | 100 | 1.63 | 1.63 | 140 | 1.47 |
| G. T. W. | 1,904.22 | 305,582 | 160 | 162 | 5.1 | 5.1 | .... | .... | 100 | 1.61 | 1.61 | 258 | 5.00 |
| L. & H. R. | 113.42 | 3,991 | 35 | 82 | 1.3 | 3.1 | .... | .... | 100 | 2.31 | 2.31 | 81 | 0.74 |
| L. & N. E. | 260.37 | 13,899 | 53 | 60 | 1.8 | 2.0 | .... | .... | 100 | 2.13 | 2.13 | 114 | 2.54 |
| L. V. | 2,658.38 | 160,101 | 60 | 56 | 2.0 | 1.9 | .... | .... | 100 | 1.99 | 1.99 | 120 | 1.41 |
| Monongahela | 239.50 | 46,592 | 195 | 161 | 6.7 | 5.5 | .... | .... | 100 | 1.81 | 1.81 | 351 | 6.24 |
| Montour | 71.96 | 6,315 | 88 | 93 | 3.0 | 3.2 | 0.1 | 1.59 | 99.9 | 2.41 | 2.40 | 210 | 4.10 |
| N. Y. C. | 21,352.89 | 2,795,720 | 131 | 106 | 4.3 | 3.4 | 4.7 | 1.47 | 95.3 | 1.84 | 1.82 | 238 | 2.42 |
| N. Y. C. & St. L. | 2,521.66 | 360,614 | 143 | 122 | 4.5 | 3.9 | .... | .... | 100 | 1.83 | 1.83 | 262 | 2.06 |
| N. Y. O. & W. | 820.34 | 9,916 | 12 | 11 | 0.4 | 0.4 | .... | .... | 26.2* | 2.50 | 2.50 | 30 | 0.88 |
| N. Y. S. & W. | 214.77 | 12,517 | 58 | 67 | 2.0 | 2.3 | .... | .... | 100 | .80 | 0.81 | 47 | 2.68 |
| P. M. | 2,679.78 | 450,805 | 168 | 166 | 5.6 | 5.5 | ....† | 1.49 | 100 | 1.54 | 1.54 | 260 | 5.03 |
| P. & L. E. | 899.51 | 102,624 | 114 | 86 | 3.8 | 2.9 | ....† | .98 | 100 | 2.07 | 2.07 | 236 | 3.61 |
| P. & S. | 118.62 | 23,384 | 197 | 207 | 7.0 | 7.4 | 3.3 | 1.44 | 88.1* | 2.30 | 2.27 | 448 | 17.10 |
| P. & W. Va. | 182.09 | 45,839 | 252 | 258 | 8.3 | 8.6 | 11.7 | 1.47 | 83.4* | 2.09 | 2.01 | 507 | 5.94 |
| P. S. & N. | 219.85 | 15,854 | 72 | 140 | 2.5 | 4.8 | 100 | 1.14 | .... | .... | 1.14 | 82 | 4.71 |
| Wabash | 3,152.54 | 440,330 | 140 | 150 | 4.5 | 4.8 | .... | .... | 100 | 1.61 | 1.61 | 225 | 2.38 |
| Total | 46,719.32 | 5,745,464 | 123 | 108 | 4.0 | 3.5 | 2.9 | 1.37 | 96.0* | 1.77 | 1.76 | 216 | 2.42 |
| **Central Eastern Region:** | | | | | | | | | | | | | |
| A. C. & Y. | 214.43 | 53,621 | 250 | 195 | 8.7 | 6.7 | 96.2 | 1.62 | 3.8 | 2.35 | 1.65 | 412 | 11.67 |
| B. & O. | 10,333.16 | 1,557,649 | 151 | 128 | 5.3 | 4.5 | 0.2 | .94 | 99.8 | 1.78 | 1.78 | 268 | 2.66 |
| B. & L. E. | 488.25 | 40,298 | 83 | 151 | 2.7 | 4.9 | .... | .... | 100 | 2.19 | 2.19 | 181 | 1.57 |
| C. of N. J. | 1,451.40 | 119,988 | 83 | 80 | 2.9 | 2.8 | .... | .... | 100 | 2.00 | 2.00 | 165 | 1.97 |
| C. & E. I. | 1,332.51 | 144,592 | 109 | 110 | 3.5 | 3.7 | .... | .... | 100 | 1.27 | 1.27 | 138 | 2.26 |
| C. & I. M. | 168.08 | 20,928 | 125 | 83 | 4.1 | 2.7 | .... | .... | 100 | 2.51 | 2.51 | 313 | 3.88 |
| C. I. & L. | 762.64 | 60,555 | 79 | 119 | 2.6 | 3.9 | .... | .... | 100 | 1.20 | 1.20 | 95 | 2.05 |
| D. T. & I. | 555.99 | 34,578 | 58 | 83 | 2.0 | 2.9 | .... | .... | 100 | 1.38 | 1.38 | 79 | 2.47 |
| E. J. & E. | 870.28 | 129,929 | 149 | 167 | 4.8 | 5.4 | .... | .... | 100 | 1.57 | 1.57 | 234 | 4.44 |
| Ill. Term. | 630.91 | 33,797 | 85 | 92 | 2.8 | 3.1 | 10.7 | .94 | 82.4* | 1.33 | 1.29 | 110 | 5.36 |
| Long Island | 798.35 | 74,129 | 93 | 70 | 3.3 | 2.4 | .... | .... | 100 | 2.16 | 2.16 | 200 | 3.73 |
| Mo.-Ill. | 212.84 | 52,695 | 248 | 263 | 7.9 | 8.4 | 14.6 | 1.02 | 85.4 | 1.35 | 1.30 | 322 | 15.65 |
| Penna. | 21,393.00 | 2,373,980 | 111 | 88 | 3.9 | 3.1 | .... | .79 | 100 | 1.67 | 1.67 | 185 | 1.53 |
| P.-R. Seashore Lines | 651.55 | 50,954 | 78 | 91 | 2.9 | 3.4 | .... | .... | 100 | 2.43 | 2.43 | 190 | 6.37 |
| Reading | 3,001.11 | 263,459 | 88 | 59 | 3.2 | 2.1 | .... | .... | 100 | 2.01 | 2.01 | 176 | 2.11 |
| S. I. Rap. Tran. | 79.69 | 5,245 | 66 | 57 | 2.4 | 2.1 | .... | .... | 100 | 2.15 | 2.15 | 142 | 7.52 |
| W. M. | 1,147.17 | 137,315 | 120 | 152 | 4.2 | 5.3 | 9.3 | 1.02 | 90.7 | 1.80 | 1.73 | 207 | 2.38 |
| W. & L. E. | 839.28 | 170,946 | 204 | 171 | 6.8 | 5.7 | ....† | .96 | 98.9 | 1.57 | 1.57 | 319 | 4.66 |
| Total | 44,974.64 | 5,344,658 | 119 | 103 | 4.2 | 3.6 | 1.5 | 1.39 | 98.3* | 1.72 | 1.72 | 204 | 2.04 |
| **Pocahontas Region:** | | | | | | | | | | | | | |
| C. & O. | 5,029.02 | 416,665 | 83 | 84 | 2.7 | 2.7 | .... | .... | 100 | 1.45 | 1.45 | 120 | 0.92 |
| N. & W. | 4,254.04 | 190,754 | 45 | 38 | 1.4 | 1.2 | ....† | .... | 88.8* | 1.47 | 1.47 | 66 | 0.55 |
| R. F. & P. | 376.88 | 151,651 | 402 | 337 | 14.1 | 11.8 | ....† | .... | 100 | 1.77 | 1.77 | 711 | 3.59 |
| Va. | 895.99 | 86,772 | 97 | 140 | 3.1 | 4.5 | ....† | .25 | 100 | 1.42 | 1.42 | 137 | 1.38 |
| Total | 10,555.93 | 845,842 | 80 | 79 | 2.6 | 2.6 | .... | .25 | 97.2* | 1.51 | 1.51 | 121 | 0.96 |

# Statistics of Crosstie Renewals on Leading Railroads in the United States and Canada for the Calendar Year Ending December 31, 1942—Continued

| Road | Miles of maintained track occupied by crossties | Total number of new wooden crossties laid in replacement in 1942 | Number of wooden crosstie renewals per mile of maintained track: 1942 | Number of wooden crosstie renewals per mile of maintained track: 5 year average | Per cent of wooden crosstie renewals to all ties in tracks: 1942 | Per cent of wooden crosstie renewals to all ties in tracks: 5 year average | New wooden ties untreated (U): Per cent applied | New wooden ties untreated (U): Average cost†† | New wooden ties treated (T): Per cent applied | New wooden ties treated (T): Average cost†† | Weighted average cost per new wooden crosstie | Cost of new wooden crosstie renewals per mile of maintained track | Cost of new wooden crosstie renewals per thousand equated gross ton-miles (cents) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Southern Region:** | | | | | | | | | | | | | |
| A. G. S. | 547.32 | 46,947 | 86 | 103 | 2.8 | 3.3 | ....† | $1.07 | 100 | $1.83 | $1.82 | $156 | 1.21 |
| A. & W. P. | 140.23 | 35,104 | 250 | 197 | 8.1 | 6.4 | 1.1 | 1.48 | 98.9 | .84 | 1.47 | 368 | 5.07 |
| W. Ry. of Ala. | 183.61 | 42,570 | 232 | 210 | 7.6 | 6.9 | 96.3 | 1.43 | 3.7 | 1.69 | 1.44 | 334 | 5.01 |
| A. B. & C. | 790.46 | 114,093 | 144 | 149 | 5.0 | 5.2 | 14.5 | .88 | 85.5 | 1.44 | 1.36 | 197 | 6.29 |
| A. C. L. | 6,701.84 | 1,025,508 | 153 | 129 | 5.3 | 4.4 | 5.9 | 1.00 | 94.1 | 1.52 | 1.49 | 228 | 3.92 |
| C. of Ga. | 2,260.95 | 376,510 | 167 | 157 | 5.6 | 5.3 | ....† | .81 | 100 | 1.13 | 1.13 | 188 | 4.27 |
| C. & W. C. | 428.42 | 68,835 | 161 | 142 | 5.6 | 4.9 | 98.0 | 1.40 | 2 | 1.01 | 1.39 | 224 | 7.72 |
| C. N. O. & T. P. | 770.08 | 37,169 | 48 | 68 | 1.6 | 2.2 | .... | .... | 100 | 1.83 | 1.83 | 88 | 0.60 |
| Clinchfield | 398.06 | 76,653 | 193 | 230 | 6.3 | 7.6 | 44.9 | .88 | 55.1 | 1.68 | 1.32 | 254 | 2.40 |
| Col. & Green. | 203.48 | 34,656 | 170 | 172 | 5.4 | 5.4 | 29.0 | .82 | 71 | 1.52 | 1.31 | 224 | 15.01 |
| F. E. C. | 1,266.26 | 224,645 | 177 | 172 | 6.2 | 6.0 | 33.7 | 1.13 | 66.3 | 2.05 | 1.74 | 309 | 5.73 |
| Georgia | 434.91 | 102,436 | 236 | 191 | 7.7 | 6.2 | 97.3 | 1.36 | 2.7 | 2.34 | 1.38 | 326 | 5.36 |
| G. & F. | 455.71 | 139,868 | 307 | 219 | 11.4 | 8.1 | 100 | .85 | .... | .... | 0.85 | 261 | 20.09 |
| G. S. & F. | 465.30 | 59,636 | 128 | 112 | 4.1 | 3.6 | 100 | 1.26 | .... | .... | 1.26 | 162 | 4.11 |
| G. & S. I. | 309.07 | 67,965 | 220 | 220 | 7.1 | 7.1 | .... | .... | 100 | 1.22 | 1.22 | 269 | 11.07 |
| G. M. & O. | 2,047.98 | 689,563 | 337 | 314 | 10.6 | 9.9 | 6.5 | .81 | .93* | 1.53 | 1.48 | 499 | 8.87 |
| I. C. | 7,518.18 | 1,462,977 | 195 | 178 | 6.4 | 5.8 | 0.9 | 1.36 | 99.1 | 1.30 | 1.30 | 254 | 2.76 |
| Y. & M. V. | 2,017.11 | 567,424 | 281 | 213 | 9.2 | 7.0 | 3.6 | .79 | 96.4 | 1.37 | 1.35 | 378 | 8.48 |
| L. & N. | 6,705.61 | 1,098,930 | 164 | 131 | 5.7 | 4.6 | ....† | 1.04 | 100 | 1.48 | 1.48 | 243 | 2.89 |
| Miss. Cent. | 174.67 | 39,093 | 224 | 272 | 7.1 | 8.6 | ....† | .46 | 100 | 1.25 | 1.25 | 279 | 14.73 |
| N. C. & St. L. | 1,474.19 | 179,670 | 122 | 109 | 4.5 | 4.0 | .... | .... | 100 | 1.51 | 1.51 | 184 | 2.85 |
| N. O. & N. E. | 284.34 | 33,905 | 119 | 106 | 3.9 | 3.4 | 2.4 | 1.48 | 97.6 | 1.75 | 1.75 | 208 | 1.50 |
| Nor. Sou. | 846.11 | 300,072 | 355 | 326 | 11.5 | 11.3 | 98.4 | .92 | 1.6 | 1.71 | 0.93 | 330 | 13.02 |
| S. A. L. | 5,238.01 | 974,030 | 186 | 185 | 6.1 | 6.1 | 19 | 1.11 | 81 | 1.49 | 1.42 | 264 | 3.79 |
| Southern | 8,618.06 | 1,520,122 | 176 | 191 | 5.7 | 6.1 | 11.7 | 1.40 | 88.3 | 1.81 | 1.76 | 310 | 4.42 |
| Tenn. Cent. | 341.89 | 112,610 | 329 | 259 | 10.9 | 8.6 | 47.5 | .91 | 52.5 | 1.79 | 1.37 | 451 | 14.16 |
| Total | 50,621.85 | 9,430,991 | 186 | 172 | 6.2 | 5.7 | 15.2 | 1.10 | 84.6* | 1.51 | 1.44 | 269 | 3.89 |
| **Northwestern Region:** | | | | | | | | | | | | | |
| C. & N. W. | 11,402.35 | 1,546,872 | 136 | 134 | 4.6 | 4.5 | 4.4 | .58 | 95.6 | 1.14 | 1.12 | 152 | 3.63 |
| C. G. W. | 1,882.90 | 256,177 | 136 | 155 | 4.6 | 5.2 | 43.9 | 1.15 | 56.1 | 1.64 | 1.43 | 194 | 3.42 |
| C. M. St. P. & P. | 13,615.75 | 2,344,550 | 172 | 163 | 5.6 | 5.3 | 32.5 | .83 | 67.5 | 1.49 | 1.27 | 219 | 4.78 |
| C. St. P. M. & O. | 2,171.35 | 376,593 | 173 | 174 | 5.9 | 5.9 | 2.7 | .69 | 97.3 | 1.34 | 1.33 | 230 | 6.20 |
| D. M. & I. | 1,099.04 | 115,574 | 105 | 98 | 3.5 | 3.3 | 23.1 | .88 | 76.9 | 1.62 | 1.45 | 153 | 2.12 |
| D. S. S. & A. | 516.70 | 89,881 | 174 | 191 | 6.1 | 6.7 | 73.5 | .74 | 26.5 | 1.32 | 0.89 | 155 | 6.67 |
| D. W. & P. | 209.58 | 69,062 | 330 | 317 | 11.3 | 10.8 | 56 | .76 | 44 | 1.49 | 1.08 | 356 | 10.84 |
| G. N. | 9,965.74 | 1,491,914 | 150 | 137 | 4.8 | 4.4 | 0.2 | .57 | 95.5* | 1.43 | 1.41 | 212 | 3.86 |
| G. B. & W. | 283.92 | 84,845 | 299 | 338 | 10.4 | 11.7 | 61.4 | .91 | 38.6 | 1.71 | 1.22 | 365 | 17.43 |
| L. S. & I. | 236.06 | 41,401 | 175 | 172 | 5.8 | 5.7 | 86.4 | .69 | 13.6 | 1.65 | 0.82 | 144 | 14.93 |
| M. & St. L. | 1,564.52 | 338,391 | 216 | 216 | 7.2 | 7.1 | 76.9 | .87 | 23.1 | 1.45 | 1.00 | 217 | 8.61 |
| M. St. P. & S. S. M. | 4,918.73 | 619,910 | 126 | 139 | 4.3 | 4.7 | 45.2 | .68 | 54.8 | 1.28 | 1.01 | 128 | 4.26 |
| N. P. | 9,140.45 | 1,266,922 | 139 | 135 | 4.8 | 4.6 | 3.3 | .84 | 96.7 | 1.34 | 1.33 | 184 | 3.83 |
| Spokane Int. | 176.01 | 64,711 | 368 | 345 | 12.6 | 12.0 | 100 | .81 | ....† | 1.50 | 0.81 | 296 | 17.27 |
| S. P. & S. | 1,087.06 | 230,565 | 212 | 235 | 7.0 | 7.9 | 20 | .89 | 80 | 1.61 | 1.47 | 311 | 5.46 |
| Total | 58,270.16 | 8,937,368 | 153 | 150 | 5.1 | 5.0 | 21 | .82 | 78.4* | 1.37 | 1.25 | 192 | 4.25 |
| **Central Western Region:** | | | | | | | | | | | | | |
| Alton | 1,506.05 | 292,665 | 194 | 234 | 6.4 | 7.8 | 56.8 | 1.23 | 43.2 | 1.81 | 1.48 | 288 | 4.17 |
| A. T. & S. F. | 18,937.38 | 1,984,907 | 105 | 96 | 3.5 | 3.2 | .... | .... | 100 | 1.28 | 1.28 | 135 | 1.82 |
| C. B. & Q. | 11,993.08 | 2,308,694 | 193 | 165 | 6.2 | 5.3 | .... | .... | 91.3* | 1.38 | 1.38 | 267 | 5.11 |
| C. R. I. & P. | 9,502.04 | 1,049,079 | 110 | 112 | 3.7 | 3.7 | .... | .... | 100 | 1.08 | 1.08 | 119 | 2.14 |
| C. & S. | 827.73 | 76,948 | 93 | 93 | 3.1 | 3.1 | ....† | .83 | 91.7* | 1.33 | 1.33 | 123 | 2.75 |
| C. & W. | 103.18 | 10,643 | 103 | .... | 3.7 | .... | 1.6 | .63 | 98.4 | 1.92 | 1.90 | 196 | 60.82 |
| D. & R. G. W. | 3,109.63 | 102,105 | 33 | 57 | 1.1 | 1.8 | 0.7 | .42 | 59.8* | 1.39 | 1.38 | 45 | .72 |
| D. & S. L. | 315.04 | 73,080 | 229 | 143 | 7.5 | 4.7 | .... | .... | 100 | 1.75 | 1.75 | 400 | 13.80 |
| F. W. & D. C. | 946.25 | 77,639 | 82 | 88 | 2.7 | 2.9 | .... | .... | 100 | 1.33 | 1.33 | 110 | 3.04 |
| Nev. Nor. | 191.02 | 31,023 | 162 | 176 | 5.7 | 6.1 | 100 | 1.15 | .... | .... | 1.15 | 186 | 31.54 |
| Northwestern Pac. | 420.70 | 90,579 | 215 | 171 | 7.4 | 5.9 | 84.1 | 1.25 | 15.9 | 1.41 | 1.28 | 275 | 10.12 |
| S. P. | 11,974.01 | 1,265,656 | 106 | 101 | 3.5 | 3.3 | 6.9 | .95 | 93* | 1.41 | 1.37 | 145 | 1.42 |
| T. P. & W. | 277.94 | 31,248 | 112 | 215 | 3.5 | 6.8 | .... | .... | 100 | 1.39 | 1.39 | 156 | 4.74 |
| U. P. | 13,108.40 | 2,570,112 | 196 | 169 | 6.9 | 6.0 | 3.7 | .86 | 96.3 | 1.22 | 1.21 | 237 | 2.55 |
| Utah | 72.34 | 6,314 | 87 | 93 | 3.1 | 3.3 | 5.9 | .74 | 92.4* | 2.46 | 2.43 | 212 | 4.39 |
| W. P. | 1,492.46 | 201,693 | 135 | 275 | 4.5 | 9.3 | 53.1 | 1.06 | 46.7* | 1.60 | 1.32 | 178 | 1.86 |
| Total | 74,777.25 | 10,171,385 | 136 | 128 | 4.5 | 4.3 | 5.4 | 1.09 | 91.7* | 1.30 | 1.29 | 176 | 2.37 |
| **Southwestern Region:** | | | | | | | | | | | | | |
| B.-R. I. | 177.99 | 11,094 | 62 | 74 | 1.9 | 2.3 | .... | .... | 100 | 1.07 | 1.07 | 67 | 1.92 |
| B. S. L. & W. | 143.47 | 21,788 | 152 | 114 | 5.1 | 3.8 | .... | .... | 100 | 1.31 | 1.31 | 199 | 1.34 |
| N. O. T. & M. | 222.37 | 36,981 | 166 | 168 | 5.4 | 5.5 | 2.2 | .65 | 97.8 | 1.30 | 1.28 | 213 | 3.00 |
| St. L. B. & M. | 755.06 | 116,373 | 154 | 131 | 5.1 | 4.3 | .... | .... | 100 | 1.30 | 1.30 | 200 | 4.14 |
| S. A. U. & G. | 359.49 | 36,266 | 101 | 124 | 3.5 | 4.3 | .... | .... | 100 | 1.25 | 1.25 | 126 | 6.94 |
| I.-G. N. | 1,460.39 | 191,379 | 131 | 117 | 4.4 | 3.9 | .... | .... | 100 | 1.27 | 1.27 | 166 | 3.49 |
| K. C. S. | 1,237.52 | 589,236 | 476 | 227 | 15.0 | 7.1 | ....† | .76 | 100 | 1.32 | 1.31 | 626 | 7.16 |
| K. O. & G. | 353.67 | 12,925 | 37 | 86 | 1.2 | 2.9 | .... | .... | 100 | 1.19 | 1.19 | 43 | 1.48 |
| L. & A. | 888.19 | 469,055 | 528 | 293 | 16.3 | 9.1 | ....† | .80 | 100 | 1.28 | 1.28 | 676 | 15.42 |
| M. V. | 376.44 | 20,915 | 56 | 73 | 1.9 | 2.5 | 0.1 | .71 | 99.9 | 1.16 | 1.16 | 65 | 5.85 |
| M. & A. | 357.40 | 118,802 | 332 | 336 | 10.7 | 10.8 | 88.9 | .61 | 11.1 | 1.25 | 0.68 | 227 | 14.50 |
| M.-K.-T. | 3,992.06 | 1,283,479 | 322 | 149 | 10.2 | 4.7 | 1.6 | .95 | 98.4 | 1.47 | 1.46 | 471 | 8.66 |
| M. P. | 8,916.34 | 1,304,113 | 146 | 168 | 4.7 | 5.4 | 2.7 | .68 | 97.3 | 1.26 | 1.24 | 181 | 2.31 |
| O. C.-A.-A. | 140.35 | 43,677 | 311 | 223 | 10.8 | 7.7 | 85.1 | .92 | 14.9 | .93 | 0.92 | 286 | 21.08 |
| St. L.-S. F. | 6,252.60 | 764,532 | 122 | 135 | 3.9 | 4.3 | 2.4 | .83 | 97.6 | 1.22 | 1.21 | 148 | 2.90 |
| St. L. S. F. & T. | 153.39 | 17,859 | 116 | 154 | 3.7 | 4.8 | .... | .... | 100 | 1.13 | 1.13 | 132 | 1.62 |
| St. L. Sw. | 1,851.64 | 293,822 | 159 | 168 | 4.9 | 5.3 | .... | .... | 99.6* | 1.36 | 1.36 | 215 | 2.36 |
| T. & N. O. | 5,552.97 | 828,529 | 149 | 140 | 5.5 | 5.1 | ....† | 1.05 | 100 | 1.04 | 1.04 | 156 | 2.56 |
| T. & P. | 2,417.43 | 509,843 | 211 | 138 | 7.2 | 4.7 | .... | .... | 100 | 1.26 | 1.26 | 266 | 3.69 |
| Tex. Mex. | 202.99 | 35,343 | 174 | 154 | 5.5 | 4.9 | 2.3 | .35 | 97.7 | 1.59 | 1.56 | 272 | 32.43 |
| Total | 35,811.76 | 6,706,011 | 187 | 155 | 6.2 | 5.1 | 3.3 | .73 | 96.6* | 1.28 | 1.26 | 236 | 3.75 |
| Grand Total—United States | 332,201.82 | 48,168,240 | 145 | 133 | 4.8 | 4.4 | 9.5 | .96 | 89.6* | 1.47 | 1.42 | 206 | 2.79 |
| **Canadian Roads:** | | | | | | | | | | | | | |
| C. P. R. | 21,054.00 | 2,928,284 | 139 | 149 | 4.9 | 5.3 | 41.1 | .66 | 58.9 | 1.33 | 1.05 | 146 | 3.57 |
| T. & N. O. | 651.00 | 148,388 | 228 | 262 | 7.9 | 9.0 | 100 | .75 | .... | .... | 0.75 | 171 | 6.45 |

* Owing to the fact that the total number of ties inserted on some roads included some second-hand ties, ties other than wood, tie blocks, etc., the percentage of treated and untreated ties do not total 100 per cent in all cases.

†† These are storekeeper's average costs of ties charged out and used. They are not the actual costs or the prices paid for ties purchased during the period.

† Proportion is less than 0.1 per cent.

two Canadian roads inserted 3,076,672 ties in 1942, compared with 3,170,447 in 1941, a decrease of 93,775, or 2.9 per cent. These and other important comparisons can be drawn from the tabulation of statistics relating to tie renewals compiled by the Bureau of Railway Economics from reports made to the Interstate Commerce Commission by the roads, and reproduced here in condensed form.

In general, the number of ties renewed per mile of maintained track, with the exceptions to be noted, did not vary widely from 1941. This is attested by the fact that the average for all Class I roads in the United States was only five more than the average in 1941, although it exceeded the five-year average by 12 ties to the mile. Among the noteworthy changes were the Atlantic Coast Line, 117 to 153; the Louisville & Nashville, 137 to 164; the Nashville, Chattanooga & St. Louis, 100 to 122; the Denver & Salt Lake, 137 to 229; the International-Great Northern, 111 to 131; the Kansas City Southern, 245 to 476; the Missouri-Kansas-Texas, 131 to 322; the Texas & Pacific, 171 to 211; the New York Connecting, 317 to 223; the Bessemer & Lake Erie, 121 to 83; the Elgin, Joliet & Eastern, 201 to 149; the Chicago Great Western, 163 to 136; the Duluth, Missabe & Iron Range, 135 to 105; the Western Pacific, 331 to 135; the Missouri Pacific, 169 to 146; and the St. Louis Southwestern, 182 to 159. In each of these comparisons the figures for 1941 are given first.

Of equal interest are the comparisons by regions, these being as follows: the New England region, 100 to 94; the Great Lakes region, 121 to 123; the Central Eastern region, 121 to 119; the Pocahontas region, 84 to 80; the Southern region, 174 to 186; the Northwestern region, 156 to 153; the Central Western region, 135 to 136; and the Southwestern region, 150 to 187. For the United States as a whole, the comparison is 140 to 145. The five-year average for the several regions is New England, 97; Great Lakes, 108; Central Eastern, 103; Pocahontas, 79; Southern, 172; Northwestern, 150; Central Western, 128; Southwestern, 155; and for the United States, 133.

Further analysis of the tie renewal statistics reveals that in 1942 treated ties were applied exclusively on 48 roads, the same number as in 1941, and that only five roads did not apply any treated ties, compared with nine in the previous year. On 49 roads, more than 80 per cent of the ties that were applied were treated; on eight roads, the percentage of treated ties ranged from 60 to 80; on 10 roads, from 40 to 60 per cent of the ties were treated; on four roads the treated ties represented from 20 to 40 per cent of the total number applied; and on nine others the treated ties ranged from negligible to 20 per cent.

## More Treated Ties Used

Relatively, in 1942, there was a further increase in the use of treated ties, such ties having constituted 89.6 per cent of all ties inserted in replacement during the year, compared with 87.5 per cent in 1941. While this represents an increase of 2.1 in the ratio of treated to untreated ties, it also represents an increase of 5.4 per cent in the number of treated ties applied, compared with 1940.

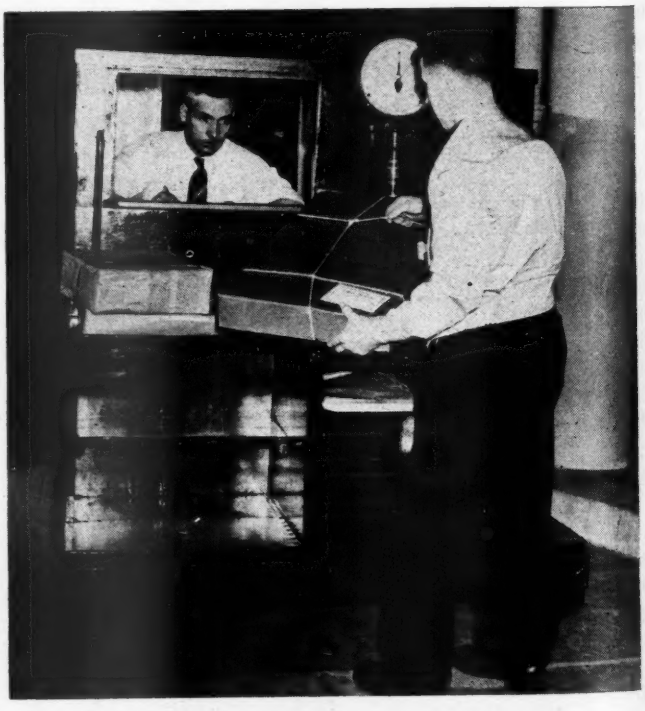
Numerically, the increase was 2,248,134, from 41,315,069 treated ties inserted in 1941 to 43,563,203 inserted in 1942. There was an accompanying decrease of 17.2 per cent in the number of untreated ties applied in 1942, compared with 1941. Numerically, the decrease was from 5,561,746 untreated ties applied in 1941 to 4,605,037 applied in 1942, a difference of 956,709 ties. There was an increase of 100,210 in the number of second-hand and substitute ties applied in 1942, compared with the previous year, the increase being from 347,778 in 1941 to 447,988 in 1942.

The tabulation contains a column showing the five year average renewals for each road and each region which reveals that the roads having the lowest five-year averages per mile of maintained track were the Norfolk & Western, 38; the Lehigh Valley, 56; the Denver & Rio Grande Western, 57; the Reading, 59; the Lehigh & New England, 60; the Delaware, Lackawanna & Western, 65; the New York, New Haven & Hartford, 67; the New York, Susquehanna & Western, 67; the Cincinnati, New Orleans & Texas Pacific, 68; the Long Island, 70; the Central of New Jersey, 80; the Chesapeake & Ohio, 84; the Erie, 85; the Pennsylvania, 88; the Atchison, Topeka & Santa Fe, 96, and the New York Central, 106. The five-year average of the Canadian Pacific was 149, and of the Temiskaming & Northern Ontario, 262.

Three measures of tie-renewal policies are shown in the last three columns of the accompanying table. One of these gives the average cost of wooden crossties; another gives the cost of tie renewals per mile of maintained track; and the final column gives the cost of wooden crossties per thousand equated gross-ton miles. In this connection, considerable caution should be exercised in comparing the cost of ties on one railway with that on another, because of the wide variations in conditions that exist at present in different sections of the country.

The data in the table cover a total of 332,201.8 miles of maintained tracks, compared with 335,659.2 miles in 1941, a decrease of 3,457.4 miles.

* * *



**A "Waybill Coop" Used by the C.N.R.'s Express Section at the New Central Station in Montreal**

A mobile office has been developed by the road to facilitate the handling of express packages. The "coop" measures 4 ft. 5 in. by 6 ft. 5 in., and is 5 ft. 3 in. high. There are 18 of these units at the station ready to be moved wherever needed in the space allotted to the railway express department in the station structure. The waybill clerk sits at the desk and receives parcels from the scaleman who passes on information regarding weight and destination.

# Oral Argument in Op Wage Case

**Flynn and Aronson sum up in turn for the labor organizations and management after board hears concluding testimony with respect to demands of short-line and Pullman employees**

ORAL arguments were heard this week in the wage proceeding involving demands of the transportation brotherhoods for a 30 per cent increase with a minimum raise of $3 per "day." Following upon concluding testimony with respect to demands of short-line and Pullman Company employees, they marked the closing phase of hearings which had been under way at New York since June 7 before a National Railway Labor Panel Emergency Board consisting of Chairman Walter P. Stacy, I. L. Sharfman, and Frank M. Swacker.

Brotherhood arguments were presented by Edward J. Flynn, former chairman of the Democratic National Committee, while the principal summation on behalf of management was made by J. Aronson, vice-president (law), New York Central, who is chief counsel for the Carriers' Conference Committee.

### Oliver on Short-Line and Pullman Wages

Wage, operating and financial statistics of short-line railroads, as well as of the Pullman Company, were introduced by E. L. Oliver, statistician, who had testified for the transportation unions in the main case. In the years 1936 to 1942, he said, the increase in average annual compensation of transportation employees of short-line railroads was below the changes in weekly earnings in the manufacturing industry. While there was, for example, a 27.9 per cent increase for employees of Class II and III line-haul railroads, all manufacturing employees got raises averaging 71.9 per cent.

According to Mr. Oliver, average daily earnings of Pullman conductors revealed a 20.6 per cent increase in 1942 over 1936, revenue passengers per conductor employed were 22.6 per cent greater in the same period, and operating revenue per conductor employed showed an increase of 43.2 per cent. In 1942, he calculated, conductors received 15.9 per cent less than in 1936 of every dollar of operating revenue. Here again the witness made comparisons with the manufacturing industry, testifying that, between 1936 and 1942, the daily wages of Pullman conductors increased 17.9 per cent while earnings in manufacturing were going up by the previously-mentioned 71.9 per cent.

B. E. Dwinnell, general attorney, Chicago, Rock Island & Pacific, representing the Pullman Company, asked Mr. Oliver if he thought that wages should be increased on the strength of his data on revenue passengers per conductor employed. The witness replied "not either increased or decreased," but said he felt that where wages were concerned "any change in the volume of work ought to have its "appropriate measure of consideration." Counsel pointed out that whereas operating revenue per conductor day was greater in 1942 than in 1941, that this was due partly to increased travel and partly to increased rates, the latter having been secured to take care of 1941 wage increases. The latter prompted Mr. Dwinnell to suggest that the witness was using "the rate increase secured to meet the wage increase of 1941 as a reason for another and further wage increase." Counsel also insisted that "if you would compute real wages of Pullman conductors based on 1929 levels, you would find an increase in purchasing power of their earnings greater than the actual percentage of their dollar wages."

R. E. Edrington, assistant grand chief, Brotherhood of Locomotive Engineers, who testified also in the main case, introduced an exhibit showing the basic daily wage rates of pay for engineers on railroads paying other than standard rates. The Blue Ridge was cited as one paying $7.33 per day for an engineer on a locomotive of less than 80,000 lb. on drivers, whereas the standard rate for this weight locomotive is $8.48.

D. B. Robertson, president Brotherhood of Locomotive Firemen and Enginemen, said the "self-styled 'short lines'" would probably contend there is a difference from other carriers in duties and qualifications of their employees, but that actually they are "strikingly similar." Expecting the short lines to present an "inability to pay" argument, Mr. Robertson referred to the recent non-op wage report's remark that the "weak financial condition of some of these roads is immaterial to the case." Whereupon C. A. Miller, vice-president general counsel, American Short Line Association, called attention to other emergency-board reports where "ability to pay" had been taken into consideration.

H. W. Fraser, president, Order of Railway Conductors, felt the short-line men should not be looked upon as a separate group, and said they are subject to the increases in cost of living common to all workers. "Without discussing at all the subject of 'ability to pay,'" Mr. Fraser made it plain that the O. R. C. was "in full accord with the statements made by Mr. Robertson." W. P. Kennedy, vice-president, Brotherhood of Railroad Trainmen, also concurred.

### Says Pullman Conductors Work Long Hours

A. G. Wise, general chairman, O. R. C. Pullman System, explained the duties and responsibilities of sleeping car conductors, observing that "there is no law governing the hours of work. The basic month for Pullman conductors is 240 hours net," he said. "This is an average of 8 hours for each 30 days. Pullman conductors do not receive any overtime until they have worked 270 hours. This is an average of 9 hours per day. Besides these long hours on duty, there are certain deductions made from conductors on night runs and long runs, for which they are not compensated. On what is termed an 'overnight run,' the conductor is required to make 12 round trips each month. This involves working 24 nights a month, and the usual deductions made for runs of this type are 4 hours per night, or 96 hours each month that the conductor is actually on the train."

Mr. Wise also asserted that conductors who work on the extra board frequently are kept away from home from 30 to 60 days, which increases their personal ex-

pense. Over-crowding of trains has often left the conductor without a berth, he added, yet the "average sleep deductions per conductor per month is approximately 57 hours."

### Morale Called "Extremely Low"

During the depression, the witness went on, it was the policy of the company to "cut off men with many years of service." Characterizing morale of remaining conductors as "extremely low," he said the company is now advertising for conductors, as many men furloughed by Pullman in other years "gave up hope of ever being recalled and went into other work."

C. L. Darling, president, American Train Dispatchers' Association, at this point, spoke for 10 train dispatchers on the Atlanta, Birmingham & Coast, asking that "very sub-standard" rates of pay be increased to $326 per month for chief dispatchers, to $316 for assistant and night chief dispatchers and to $300 for trick dispatchers, present rates being $269.44 for chief dispatchers and $243.36 for "trick." Mr. Darling stated the correct designation for a train dispatcher is the "unknown" or "undiscovered" man, adding that there was nothing "automatic" about his work. He went on to assert that "without the magnificent train dispatching existing on American railroads today, it would be impossible for the railroads to move the stupendous traffic created by this global war," as they are per man directing more trains than ever before.

Observing that the witness had gone into the earnings of the railroad for the past two years, Furman Smith, general counsel of the A. B. & C., inquired if he had also looked into the figures for the years 1913 to 1940. Mr. Darling had not.

The A. B. & C. is confronted with two demands in the present proceeding: (1) To bring the rates of pay of engineers, firemen, conductors and trainmen up to standard rates (as well as the dispatchers described above) and (2) the general 30 per cent increase or $3 minimum daily increase which is being requested of all carriers. The dispatchers are excluded from this second demand. When B. of L. F. and E. President Robertson was on the stand he introduced an exhibit comparing daily rates of pay for engineers and firemen on the A. B. & C. with other southeastern railroads. Passenger engineers on locomotives of less than 80,000 lbs. weight on drivers, he observed, receive $6.29 as against the $7.76 prevailing basic daily wage, while the freight service engineers for the same type locomotive receive $6.87 on the A. B. & C. as against $8.48 in the territory. Firemen in passenger service on locomotives of this class receive $6.11 on southeastern railroads generally and $4.95 on the A. B. & C.

### Stresses Special Situation of Short Lines

J. H. Huntt, secretary-treasurer, American Short Line Railroad Association, stated that while there is no accurate definition of a "short line railroad," Congressional committees "have frequently been told that it means a railroad that is 'short in mileage or short in revenue or short in both.'" Mr. Huntt observed that each of the carriers in this group had one or more of these "attributes."

Taking the view that short line railroads differ from Class I roads or trunk lines, he said they also differ from each other, one member of the Association having but two on the payroll while others are "well staffed." The average length of a short line railroad, he said, "is somewhere in the neighborhood of 35 miles." Motor trucks, inland waterways, and Class I roads are the competitors of the short lines, the witness stated and he pointed out that it has been difficult for short lines to obtain Government traffic because "many government officers charged with the responsibility of routing traffic have gained the notion that a through rate with the least number of lines of railroad is preferable to one comprising a large number of carriers." Moreover, short lines have "initiated about every economy that can be conceived." Employee requirements are "much less strict" than on Class I roads, he said, adding that many short-line employees could not qualify for Class I employment.

Mr. Huntt introduced exhibits showing for the roads he represented the classification, mileage, number of employees, and estimated cost of meeting the $3 per day wage increase. Also he presented a statement showing the extent to which they earned "fair return" in the years 1937 to 1942. According to Mr. Huntt, 18 of the carriers did not earn a fair return in any of the six years, four earned a fair return for one year, four for two years, one for three years and one for four years. Two earned fair returns for 5 years.

B. L. Bugg, president of the A. B. & C., said that for the years 1927 to 1940 his road's net railway operating income was "in the red," and that while 1941 and 1942 showed a net income, figures for this June were lower than last year, because of increased expenses. According to Mr. Bugg, accumulated deficits since 1927 (when the company underwent reorganization) total more than $3¼ million. The common stock is owned by the Atlantic Coast Line, and not since 1927, remarked the witness, has any financial aid been tendered the A. B. & C., nor is there any likelihood it can look to the A. C. L. to meet its payroll.

Harold R. Lary, supervisor of industrial relations, Pullman Company, stated the question in this case to be whether or not Pullman conductors were "entitled to an increase in pay at this time under present conditions and government regulations," or whether their rates were "just and reasonable."

### Sample Pullman-Conductor Runs

An exhibit which he introduced outlined 14 sample regular Pullman conductor operations. It showed that on the Washington-New York run, a Pullman conductor would receive one day off after every cycle of two round trips. In this way, his average service for a month would total 181 hr. 40 min., he would have at home 461 hr. 40 min., and his layover at the Washington Terminal would be 76 hr. 40 min. In general, Mr. Lary explained, this chart illustrates that the longer a man is away from home on a trip, the longer he stays at home between trips.

Accounting for the amount of over-time many conductors are putting in, Mr. Lary said that a third of the Pullman business at this time consists of troop movements. He observed that at present large amounts of dead-heading in connection with troop movements result in the crediting of many deadhead hours during which a conductor, although under pay, has no work or duty to perform. The company has added 400 new conductors since the war, but for the most part, the witness stated, men are not working any more hours than they did in prior years. In cases of overtime, they are paid "at the agreed to overtime rates."

The requested 30 per cent increase in wages, on the basis of March, 1943, employment and classification of Pullman conductors would cost about $1,750,000 annually, Mr. Lary said. The increase would cost about

$2,350,000 if the minimum increase were $3 per basic day.

J. P. Leech, superintendent of the Pullman Company's New York Zone, commended conductors for their courtesy to passengers, asserting "they form a fine group of American citizens who are doing a good job." He explained the instruction period required for each man, and stated that after 10 days "the average man is able to undertake and fulfill the duties of a Pullman conductor." For deadheading for 24 hours, he said, they would receive pay for 12 hours.

Edward J. Flynn, in summing up the case for the brotherhoods, reiterated his opening statement's assertion that capital was using the war and the stabilization program to stop the "just" demands of labor. He referred to the growing strength of labor, saying he did not think that "labor was making extreme demands in so far as the railroads are concerned." Observing that this whole proceeding had been costly, he believed the railroads should have joined with the men in their demand for a wage increase, thereby attempting to "attack this whole problem in a rather intelligent way," by realizing the difficulties the men are under with the war reducing their living conditions to a "sub-normal" level.

The Board "in its wisdom" must determine the value of statistics entered by either side, Counsel Flynn suggested, since each side builds up charts to present as strong a case as possible. But he insisted that the anti-inflation program "has deflated these workers who were never inflated."

Whereas railroad jobs were once sought after, today labor is looking to other industries for shorter hours and higher wages, Mr. Flynn reported. Attempting to analyze why railroad men who "love the business they are in" stay despite their earnings, he reasoned it is because of "that deep-seated something that seems to hold them to a job which they know," though he maintained railroading is not today drawing younger men.

## Rail Wages Have Not Kept Pace

Calculated by the carrier methods, earnings of transportation men are at "absolutely high levels," but said Mr. Flynn, in so far as railway labor is concerned, earnings have not kept pace with other industries and the historical differential of rail pay above other industries is "fast disappearing." "If something isn't done about giving these men an increase, it will completely disappear," he attested.

Undertaking to refute the exhibit of T. O. Taylor, secretary of the Eastern Railways' Bureau of Information, Mr. Flynn charged that witness with having selected 10 of the fastest trains in the country in his wage comparison, and with having taken only "sections" of trainmen and conductors instead of all of them, to show they received "very high and exorbitant pay." Comparing wages of this group with all in train service, the counsel observed, "this is still a thin layer," and he argued that men are employed 35 to 40 years before they receive a run such as one of these. He said if there were any "incentive in employment at all" by the carriers, a run of this kind would be the only thing a man could "look forward to." Terming such runs the "cream of the entire bottle," he nevertheless insisted it is "certainly a very light and a very thin cream."

Commenting upon the statement of Lehigh Valley President Revelle W. Brown, to the effect that the duties now performed by members of the organizations involved should have no bearing on any decision of the Board, unless their requirements changed following the 1941 increase, Mr. Flynn contended that the '41 increase "was not sufficient then, and it is not sufficient now." He said there has been an increase in work, and conditions have changed greatly since then.

He cited longer hours, longer trains and heavier loads, a 100 per cent rise in passenger business, increased freight traffic, increase in away-from-home expenses and higher cost of working clothes, congestion of railroad yards and greater hazards to workers, as reasons for granting a wage increase.

In all wage hearings, he remarked, the railroads have always stressed their poverty. Suggesting they are at present in a position financially to grant the demands, Mr. Flynn cited the $900 million net income for 1942. He predicted that 1943's net income should be over $1.3 billion. In the light of this, he believes, the railroads "cannot seriously urge" inability to pay. He went on to say that though the employees have been unable to put away enough savings to weather the post-war depression the railroads "predict," the carriers nevertheless feel it important in so far as they are concerned "to set up reserves to take care of their own physical properties." If this "partnership" is a real one, it is Mr. Flynn's view that the employees should receive commensurate pay.

## Labor Must Be "Kept Happy"

Stating that labor must be "kept happy" or he "hates to think what will happen in this country," Mr. Flynn said it was a source of "high pleasure" to him to meet the men involved in this hearing. Impressed with their "high type," he said in conclusion, "they were no radicals, no Communists; they were decent, honorable, American men" who are asking of this board "justice" and a "living wage."

Counsel Smith, in conclusion for the A. B. & C. reported theirs to be a "capital case", with the railroad on trial for its life. But for periodic "transfusions" received from a "new set of suckers", this road would not now be in business, and if the wage increases are granted, he declared, it would spell the physical abandonment of the railroad.

Counsel Dwinnell, summing up the evidence for the Pullman Company, said that in the year of its peak traffic, 1942, this company made less than it did in 1929. Mr. Dwinnell pointed out that men do not attain seniority such as many of them have in the Pullman Company under terms of employment as unsatisfactory as claimed by the labor-organization witnesses. So far as the stabilization program is concerned, he believes all employees of the Pullman Company are to be considered as a unit in the application of the "Little Steel" formula. A 17 per cent increase has already been granted to the employees of this company as a whole, and he, therefore, concludes, "there is nothing coming under the 'Little Steel' formula." Earnings of $2,790 a year "do not connote sub-standard wages", he said.

J. Aronson, in discussing the case for the Class I roads, first paid tribute to the "distinguished leaders of the railroad employees", who with only an "exceptional lapse" have "conducted themselves with their usual aggression, and their abundant energy and with their well-known resourcefulness." He does not deplore the power which labor organizations have reached in the railroad industry, but cautioned there should also be an abiding "sense of responsibility." Their present wage demand he considers "grotesque", and he feels the position of labor counsel and witness "has indicated all too clearly" that in support of their plea they have

produced "statistics that are not sound," and "men who do not follow the minutia of railroad statistics" frequently get wrong notions.

The statistics which the railroads have introduced to the Board, are according to Mr. Aronson, "the most comprehensive and most exhaustive of any ever submitted to a wage board or tribunal", and that in compiling them they did not, as Mr. Flynn suggested, present the "cream of the bottle" in the matter of rates. In 1942, he said, train and engine service employees averaged $3,088 per year, the highest average annual earnings in all railroad history. In the last World War, which produced "ghastly high levels of living costs", higher than those of today, the men averaged $550 less per year than at this time.

Discussing the Railroad Retirement Board census produced by Mr. Oliver, Attorney Aronson pointed out that this Board would include all the men who had been on a job for any length of time. On the basis of this type of calculation, Mr. Oliver secured $2,833 for the average earnings of these transportation men in the year 1942, as compared to $3,088, which the carriers secured, using a middle of the month count. Mr. Aronson referred to the employee figure as a "synthetic conclusion", explaining that the Retirement Board compilation makes no allowances for deaths, retirements, resignations, layoffs for personal reasons, in which cases the list would show at least two names for each job involved. The men "get wrong impressions" because of the manner in which these computations are made, he asserted. Another "vice" of Railroad Retirement Board figures is that they do not include salaries over $300 a month, but calculates all over that figure on a $300 monthly basis. To determine just how many men this might affect, the carriers sent a questionnaire to 20 railroads (who represent some 67 per cent of all Class I railroad employees in the United States), and they learned that in March of this year that of the 207,000 men on these roads, over 28 per cent of them received $300 or more. "Don't charge us with hand-picking rates or wages we bring before you and say we have taken a thin top layer that you couldn't see!" Mr. Aronson exclaimed. The employees are now taking home in their pay envelope something more than 20 per cent above their 1941 earnings, he went on.

### Higher Speeds Mean More Pay Per Hour

The dual basis of pay was established, he explained, when speeds were less than they now are. He added that the controlling contribution to the higher speed is not that of labor, but heavier roadbed, strengthening of bridges, heavier rail, reduction of grades, and heavier engines. As a result, for each hour that a man works as speed is increased, he earns more.

Referring to Mr. Flynn's contention that the railroad wages have not kept pace with those in industries, taking 1936 as a base, Mr. Aronson denounced this as being only a "half truth". "The railroad industry cannot and should not be expected to compete with wartime industries, with shipyard, airplane manufacturing plants", because railroads are also engaged in a peace-time industry, he added.

Pointing out that the 1942 return on investment was 5.52 per cent, he said "What is the use of crying out that capital is using the war and the stabilization policy to deny proper wages to the men?" And he added "Where is capital reaping a harvest from its men when you find that some 58 per cent of all the outstanding equity capital in the railroad industry is paying no dividend at all?"

As for the possibility that railroad traffic will continue at its present pace after the war, Mr. Aronson said: "No one but the blindest ostrich would bury his head in the sand that deep and hope to escape the smell." With the tankers practically out of business, with the Panama Canal closed, with the highways shrunken, the war, he stated, has only "put competitive forms of transportation to sleep".

Even more than the investors in this industry, the "railroad employees from the head right down to the humblest maintenance of way worker, have the most vital concern in the financial survival and financial integrity" of the industry, as it represents the most significant symbol of private industry anywhere". Mr. Aronson believes that if the railroads should be undermined by a load they are unable to carry, "then perhaps someday there will be then transferred to the easy-going practices of the public treasury the maintenance of the railroad industry"; and that would carry with it more grievance for the workers than for the investors, he contended.

He wound up with a reminder that it was the duty of all concerned in the hearing to conform to the stabilization program, and that rail employees as a group have already received in their basic rates of pay an increase approximating the 15 per cent authorized by the "Little Steel" formula.

# Communication . . .

## Pan American Highway

New York, N. Y.

To The Editor:

The article in the *Railway Age* of June 26 on the "all-rail banana route" from Central America to the United States is interesting. It revives old memories of the Pan American Railway proposed at Blaine's Pan American Congress in 1890, which was to link together all the countries of the Americas by a land route from New York to Buenos Aires. Like the present strenuously advocated Pan American Highway, it was hailed as a promoter of Pan American solidarity and, therefore, of value and importance. It just died, however.

Possibly the construction of the Suchiate river bridge and the reconstruction with American funds of the old Pan American Railway, which was built 40 years ago from Tierra Blanca (near Vera Cruz) to the border of Guatemala, may be justified as a war measure, or as a part of the "Good Neighbor" policy, but even this is doubtful.

With the clearing up of the submarine menace and the increased production of ships, sea-borne traffic across the Caribbean is even now being restored to something like normality, and traffic between Central America and the United States can best be handled by ocean steamers. As for good neighborliness, we are helping to build the Pan American Highway so as to compete with this Pan American Railway.

There is almost no traffic to be interchanged between Mexico itself and Central America, and rail traffic or highway freight traffic from Guatemala through all the length of Mexico to the Rio Grande is entirely impractical from an economic standpoint. When there is so much of importance to be done in Latin America it seems a great waste of money and energy to be chasing will-o'-the-wisps of this kind.

These through routes, however, the Pan American Railway, started half a century ago, and the present Pan American Highway, have a glamorous sound and I suppose the 20 or 30 or 50 millions of dollars we have or may spend on these projects are a drop in the bucket compared to the total war effort. I doubt, however, if good neighbors can be bought with dollars.

Fred Lavis.

# Railroads-in-War News

## Vinson Cuts Award of Emergency Board

### Proposed hourly raise in North Shore case brought down from 16 to 14 cents

Economic Stabilization Director Fred M. Vinson, whose recent order has stayed the recommended eight cents per hour wage increase for non-operating railway employees, has modified another report from a National Railway Labor Panel emergency board, cutting from 16 cents per hour to 14 cents a recommended increase for trainmen of the Chicago, North Shore & Milwaukee. At the same time the OES director has approved, without modification, the recommendations on another pending report on the controversy growing out of the failure of the Columbus & Greenville, Georgia & Florida, New York, Ontario & Western, Wichita Falls & Southern, and Meridian & Bigbee to bring the wages of their employees into line with the general wage adjustment of December, 1941.

Both reports involved in the latest Vinson orders were made by the same emergency board, members of which were Chairman Richard F. Mitchell, chief justice of the Supreme Court of Iowa; Robert C. Calkins, dean of the School of Business, Columbia University; and Walter C. Clephane, Washington, D. C., attorney. The disapproved North Shore report was noted in the *Railway Age* of June 19, page 1239, while that on the short line was covered in the issue of July 3, page 34.

As noted above, Mr. Vinson this time made a specific modification of the emergency-board recommendations when he cut the increase from 16 cents to 14 cents. In the non-ops case he undertook to return the case to the emergency board which heard it originally; but Dr. I. L. Sharfman, who was chairman of that board, has taken the position that the board has ceased to exist, and that he is without authority to reconvene it. President Roosevelt's February 4 executive order, under which Mr. Vinson acts in railway wage proceedings, stipulates that "Unless and except to the extent that the Economic Stabilization Director shall otherwise direct, the recommendations of the Emergency Board . . . shall, upon the expiration of 30 days after the report is filed with the President, become effective."

The 30-day period for the North Shore report ran through July 8, and Mr. Vinson waited until the last day to act thus producing a complication. On the 8th, also, representatives of the North Shore and the interested unions — the Brotherhood of Locomotive Firemen and Enginemen, and the Brotherhood of Railroad Trainmen— met at Chicago and signed a new contract embodying the 16-cent increase as recommended by the board together with its other recommendations calling for establishment of an eight-hour day with an overtime scale at time and one-half the hourly rates and one week's vacation with pay. The latter two phases of the report were not disapproved by Mr. Vinson; nor was the recommended 65-cents-per-hour rate for switchmen.

The opinion which Mr. Vinson issued along with his order reveals that he acted to preserve the "relatively stable" relationship which has existed with respect to the pay of motormen and conductors on the North Shore, the Chicago Surface Lines, and the Chicago Rapid Transit. Brakemen and collectors were cut a like amount to preserve their 12 cent differential under the hourly rate for conductors and motormen. Thus the Vinson order will raise the conductors and motormen from 78 cents an hour to 92 cents, instead of 94 as recommended by the board; while brakemen and collectors will go up from 66 to 80 cents, instead of 82 cents.

### ODT Sets Up Permit System for Puerto Rico

To prevent traffic congestion at ports in Puerto Rico, the Office of Defense Transportation on July 10 set up a permit control system for freight movements of one gross ton or larger originating on the island and moving to the ports for transshipment by water, but the system becomes effective only when the ODT regional director for Puerto Rico decides that conditions require it.

If and when the control system goes into operation, as provided in General Order ODT 41, the regional director may require shippers to apply for permits before carriers may move freight affected to any warehouse, wharf or other port facility designated by him.

### ODT Appointment

The Office of Defense Transportation has announced the appointment of Harold K. Osgood as assistant director of the Division of Storage in charge of agricultural products warehousing. In association with Col. Leo M. Nicolson, director of the division, Mr. Osgood will deal with the ODT's nationwide storage program to meet the needs of the armed services, the Food Distribution Administration, Lend-Lease, and the civilian population.

Since 1941, when purchasing was begun under the Lend-Lease Act, Mr. Osgood has been in charge, until his current appointment, of the FDA storage program, having been appointed in 1939 chief of the storage section in that agency's transportation and warehousing branch.

## List Many Steps Freeing Tank Cars

### Oil and chemical industries co-operating with RRs and government

Measures taken since the fall of 1942 by railroads in the Southwest using oil for locomotive fuel, in cooperation with the oil industry and the Petroleum Administrator for War, have not only overcome a threatened breakdown in rail service in that area through a shortage of fuel oil and tank cars, but also have brought about release of more than 300 tank cars from that region to be added to the equipment available for the Atlantic coast oil movement, Acting Petroleum Administrator Davies disclosed July 14.

Praising the cooperation of the roads and individuals involved in this accomplishment, Mr. Davies particularly complimented Charles H. Hoinville, chairman of the southwestern fuel oil committee of the Association of American Railroads, for his contribution to the quick and efficient solution of the problem.

Among means adopted to secure this result, Mr. Davies mentioned elimination of cross-hauling, formation of zone areas and scheduling oil shipments from the nearest sources of supply, and particularly the elimination of the "common practice" of using tank cars for storage through encouraging the roads to build adequate fixed storage tanks at strategic points. The effect of these measures was seen in a comparison of the utilization of tank cars servicing the southwestern roads now, when they average 4 to 5 round trips a month, with the average of 2 to 2½ round trips per month of last fall.

The effect of the War Production Board's Transportation Order T-1, lately redesignated General Haulage Conservation Order T-1, under which the distribution of molasses and caustic soda by tank car was put on a zone basis, has been a saving of about 150 million ton-miles of chemical tank car transportation in the first three months of its operation, the WPB Chemicals Division claimed in a press release, also dated July 14.

Pointing out that the tank car movement of chemicals does not generally lend itself to solid-train movements or other expedients tending to speed up transportation, but instead is primarily a problem of distribution, of re-channeling the movements so each user will be supplied from the nearest available producing point, the WPB explained that the situation thus was its responsibility, rather than the ODT's. Order T-1 and supplementary requests are the only transportation con-

trols yet issued for WPB administration, the statement added.

Another procedure contributing to more efficient tank car utilization, according to an ODT statement, is the advance allocation of edible oils to shippers and consumers by the Food Distribution Administration. This action enables shippers to plan their use of tank cars in advance and to anticipate their requirements, it was pointed out. Release of tank cars loaded with vegetable oils and fats at destination has been speeded by another FDA measure, permitting such shipments to be unloaded in advance of chemical analysis. Where cars formerly were held for several days awaiting content analysis, they now are unloaded and released within 24 hours, the ODT explained.

Following processing of this year's crop, the movement of such commodities will require about 7000 tank cars, the statement added, and some 5350 are now engaged in this service. This requirement, however, compares with an average of 9000 cars tied up in the edible oil movement during the peak months of previous years, it was pointed out.

## Call of 1944 Requirements of Rail and Accessories

Railroads have been notified by Andrew Stevenson, director of the War Production Board's Transportation Equipment Division, to file statements of requirements of rail and track accessories up to the end of 1944. Authorizations under P-142 already have been processed by the WPB for rail and associated track accessories for the third and fourth quarters of this year and for maintenance track accessories for the third quarter of 1943, Mr. Stevenson pointed out.

Immediate submission of fourth quarter requirements of maintenance track accessories, including frogs and switches, on form WPB-2585 (formerly PD-844) has been asked. Roads are also requested to submit letter statements of requirements for each quarter of 1944 of new replacement rail, of track accessories, including frogs and switches, to accompany new rail, and of additional track accessories needed. Such statements are desired before July 31.

## New Record Made in East Coast Oil Movement

Tank car loadings smashed all records for the Eastern oil movement and topped the million barrel mark for the first time with an average of 1,017,029 a day in the week ended July 10, the Petroleum Administration for War disclosed July 15. The steady increase in supplies of Petroleum products flowing into the seaboard states by all methods of transportation has increased storage stocks available for civilian use there to 34 per cent of normal, it was announced.

Tank car loadings of petroleum products for shipment to the Atlantic coast averaged 960,362 barrels a day in the week ended July 3, a decrease of 33,292 barrels from the previous record-breaking week, Deputy Petroleum Administrator Ralph K. Davies announced last week. In the four weeks ended June 26 the total overland movement of oil to District No. 1 was 36 per cent greater than in the corresponding 1942 period, he pointed out, and not only are the increasing needs of the armed services being met, but in addition storage stocks in that area are slowly being built up toward what are considered safe minimum levels.

The Office of Defense Transportation announced July 15 that the first of 100 new tugboats to be added to the facilities of the inland and coastal waterways for the movement of oil was on that date on its way south to pick up its first load. 12 more tugboats are scheduled for delivery this month. Progress also was reported in the conversion of barges and construction of new barges and towboats to complete the program for additional waterway facilities.

## 720th Railway Operating Battalion Activated

The 720th Railway Operating Battalion, sponsored by the Chicago and North Western, was activated on July 6, when 20 officers from the railway's personnel left for training camp. Enlisted men will be assigned to the battalion during the training period.

Heading the 720th Battalion is Lt. Col. C. J. Freeman, the commanding officer or "division superintendent", formerly right of way agent of the North Western's land department. The executive officer or "assistant division superintendent" is Major W. H. Roberts, formerly chief clerk in the office of the chief operating officer of the North Western.

Capt. Thomas J. McCarthy, secretary to the chief mechanical officer, is the adjutant of the battalion. The "storekeeper" is Capt. James A. King, formerly traveling storekeeper of the North Western. First Lt. George H. Snavel will follow his regular duties as a dispatcher on the Wisconsin division by being "dispatcher" for the unit. "Signal supervisor" is First Lt. W. L. Mansfield, circuit designer in the signal department of the North Western.

The "commanding officer" of the headquarters and service company is Capt. L. H. Gallup, trainmaster on the Wisconsin division. Capt. H. L. Barr, division engineer at Chadron, Nebr., is commanding Company A as "division engineer". First Lt H. P. Frazee, instrument man at Chadron, is now "supervisor B&B" while First Lt. L. G. Riehm, assistant roadmaster of the Wisconsin division is "supervisor of track".

Second Lt. M. I. Sather, engineer in the office of capital expenditures is "assistant engineer of maintenance of way". Capt. C. B. Coyle, mechanic on the Wisconsin division, will command Company

**Lt. Col. Conrad J. Freeman (right), Right-of-Way Agent of the C. & N.W.'s Land Department, and Major W. H. Roberts (left), Chief Clerk to the Assistant Chief Operating Officer, C. & N.W., Look Over a Map of the Road Before Leaving for Camp with the 720th Railway Operating Battalion**

B as "master mechanic". First Lt. V. L. Duncan, relief roundhouse foreman at Chadron will be "enginehouse foreman".

The task of "general car foreman" is taken over by First Lt. Walter S. Ryall, car foreman at California Avenue. Second Lt. J. H. Larsen, engineer, Chicago freight terminals, will be "assistant to master mechanic". Commanding Company C, or the Transportation Company, is Capt. D. J. McLaughlin, yardmaster at Proviso. First Lts. C. S. Smith and Stewart St. John, Wisconsin division locomotive engineers, will be "road foremen of engines". First Lt. J. M. Philman, yardmaster at Chicago, will be "trainmaster." Second Lt. J. J. O'Neill, yardman at Casper, Wyo. will be "assistant trainmaster."

## ODT Revises Perishable Load Requirements

Special loading requirements for carload shipments of frozen fruits and berries, frozen eggs, juice grapes, watermelons, onions, sweet potatoes, and tomatoes have been put into effect by the Office of Defense Transportation through Special Direction ODT 18, Revised-5, Amendment 2, which consolidates previously issued special loading requirements for perishables.

The modified regulations are being put into effect, the ODT announced July 15, to take care of commodities now coming into the market in large volume and to revise certain requirements which experience has shown unsuited to safe handling under hot weather conditions.

Frozen eggs shipped during July, August or September, for example, either in tin cans or paper containers, must be loaded on end, 3 tiers high, with each tier extending the full length and width of the car. Juice grapes under the new direction must be loaded to a minimum carload weight of 36,000 lbs.

## Plan More Locomotives Than Ever in 1944

A recent meeting in Washington, D. C., of the War Production Board Advisory Committee of the locomotive building industry brought out the fact that the 1944 construction program calls for doubling the "record-breaking" 1943 locomotive output.

Assurances were given the WPB representatives at the meeting that the industry not only would meet the "tremendous" program outlined for the rest of this year, but also would accomplish the increase in output asked of it for 1944—provided production of vital components keeps up with its requirements. This will be accomplished, the WPB hopes, through the controls over production scheduling embraced in Limitation Order L-97-d, and a meeting of the Locomotive Specialty Manufacturers Advisory Committee, called for July 16, was expected to contribute toward that achievement.

WPB and War Department representatives commended the locomotive builders for their co-operation in accomplishing a 200 per cent increase in production since Pearl Harbor. The Army program for the first half of 1943 was met in full, it was explained, and 92 per cent of the domestic railroad program was completed. The failure to meet fully the domestic quota was due not to the builders, it was pointed out by the WPB, but to delays they experienced in procuring vital components.

At the advisory board meeting the entire 1944 War Department program and all steam locomotives that have been ordered by domestic railroads were scheduled for production. It was pointed out that locomotive orders placed by domestic railroads after July 15 will have to be scheduled for production in the second half of 1944, due to the length of time required to order and procure materials.

## Review USO Lounge Operations

Some of the operating problems and accomplishments of the more than 100 USO service men's lounges established in railway stations throughout the country were discussed in a radio program broadcast July 6 over station WWDC in Washington, D. C., in which B. R. Tolson, manager of the Washington Terminal, E. H. Bunnell, vice-president of the Association of American Railroads, Mrs. Jeanette M. Lowe, director of the lounge in the Washington Union Station, and Mrs. Charles F. Alexander, executive secretary of the Washington Travelers Aid Society, were interviewed by Albert R. Beatty, a manager of the A.A.R. Public Relations Department.

In the broadcast it was brought out that attendance at the station lounges all over the country exceeds a million men a month, and that more than one hundred thousand are taken care of each month in the Washington station lounge, "by far a larger number than is handled by any other similar lounge in the country."

## Eastman Says "I Told You" of July Fourth Crowding

A review of passenger travel over the Fourth of July week-end, made public by the Office of Defense Transportation July 8, cited as evidence that "many persons" heeded the ODT request to spend the holiday at home the fact there were "comparatively few" cases in which passengers were left waiting in stations for later trains. It added, however, that the "crowding of trains which occurred all over the country was plain evidence that many others ignored the request."

Summarizing reports received from railroad passenger traffic officers, the ODT statement indicated that furlough travel was heavy everywhere. While civilian travel likewise was heavy, two roads reported that it was lighter than anticipated. All available equipment was in use and standing in coaches was general in all parts of the country. "In some cases" passengers were left on station platforms but were accommodated on later trains.

Commenting on these reports, ODT Director Joseph B. Eastman said:

"The civilians who took Fourth of July trips, despite our requests that they avoid unnecessary travel at a time when the railroads are burdened by heavy military movements and heavy furlough travel, had full warning of the overcrowding, delays, and other discomforts they might expect. Now that they have experienced those discomforts, I trust they have a better understanding of what the public carriers are up against today and of the urgent need of aiding them to perform their essential war transportation jobs by refraining from travel that is not absolutely necessary. I trust also that they will carry this word to friends or neighbors who may not yet have become thoroughly aware of the necessity of conserving passenger transportation facilities.

"As I have said repeatedly, the need for travel saving is becoming more insistent all the time. The Fourth of July experience has provided a convincing demonstration of the limitations of railroad passenger-carrying capacity. With military and essential civilian travel increasing, it will take only a small amount of unnecessary travel, in the weeks to come, to produce conditions of overcrowding such as those that prevailed last week-end.

"I am sure that no patriotic American would deliberately do anything to interfere with the movement of essential passenger traffic. Yet those who travel for pleasure do just that. I urge them to be more thoughtful and in the future to give up all travel which they cannot conscientiously call necessary."

## Cancel Conventions This Year, Eastman Again Urges

Director Joseph B. Eastman of the Office of Defense Transportation has again sent officers of organizations planning conventions in 1943 an appeal to consider the serious passenger transportation problem with a view to cooperating in meeting the emergency by canceling these conventions, even though they might be devoted to matters closely concerned with the war.

"I must say to all organizations still intending to hold conventions this year," said Mr. Eastman, "that their cooperation in our travel conservation program is urgently needed to help alleviate a very difficult passenger transportation situation. That is why I earnestly request them to reconsider their plans and cancel their meetings. By doing this of their own accord, on their own initiative, they will be acting in true democratic fashion and will be helping to avert the necessity for imposing a system of restrictions on the free movement of people that would be foreign to our whole tradition."

The possibilities of conventions-by-mail have not been exhausted, Mr. Eastman suggested, adding that those responsible for group gatherings should consider not only whether they will contribute in any way to winning the war, but also whether cancellation of the convention will not accomplish even more for the war effort than holding it.

"I know that provisions of the constitutions or by-laws of some organizations stipulate the holding of annual conventions," the ODT director went on to say, "and that cancellation of the meetings may raise complications with regard to the tenure of officers and other matters. However, this is wartime. The emergency calls for emergency procedure. The action of many organizations in canceling

conventions required by a literal reading of their governing rules indicates that such obstacles to compliance with the ODT request for cancellation can be surmounted where there is full appreciation of the pressing nature of the emergency and a real desire to cooperate."

## Professional Football Teams to Travel Less

Train travel of professional football teams during the 1943 playing season will be reduced by 700,000 passenger miles as a result of revisions of playing schedules and reductions in the size of teams traveling, the Office of Defense Transportation announced last week. This reduction amounts to a decrease of 37 per cent from last year's travel by these teams. Also, curtailment of training trips is expected to effect some further cut in their use of transportation.

In addition, it was explained that coaches would be used instead of Pullman accommodations as far as possible by professional football teams during the 1943 season, and that Pullman reservations would not be made more than one day in advance when required. This departure from previous practice was hailed in the ODT statement as a contribution to the accommodation of essential travel, since space not tied up long in advance for scheduled team movements would thus be available for members of the armed forces or persons traveling on war business whose needs could not be anticipated so far ahead.

## Eastman Praises Morale and Zeal of Rail Employees

Transportation service is war service, "and I believe that fact is recognized by and has a deep influence upon all those that are engaged in that service," said Joseph B. Eastman, director of the Office of Defense Transportation July 14 in an address before the Transportation Department of the Y. M. C. A., meeting at Cincinnati, Ohio. Praising the morale of the transportation industry in general, and of the railroad industry in particular, the speaker said that the record of domestic transportation in this war reflected the keen pride in performance which both managements and men have taken in their work.

"Nothing could be of more importance than the zeal and enthusiasm in their work which only those, both high and low, who have invested their lives in the transportation industry can supply," he added. In referring to the cooperation of shippers Mr. Eastman was equally generous in his praise, but in his remarks about the cooperation of the public with the ODT's "travel conservation" program he was more restrained in bestowing compliments.

While "the people in general" seem to understand why trains and buses are crowded and why travel is full of discomforts, and seem to be willing to put up with such conditions with general good humor, he went on to say, their record from another point of view "is not so good." Continuing, he said, "We have asked them to travel only when they really have to travel, and I am sure you will agree that the campaign of publicity has been such that there must be very few who have failed to read or hear these pleas. Many have heeded them beyond a doubt, but it is equally true that many have not, and travel conditions remain far worse than they should be. If the delays and discomforts could be confined to those who have no real need to travel, it would not be so bad, but too often, unfortunately, they are visited upon the soldiers and sailors and those who must travel on business, and more often than not on business connected with the war effort. It is these people whom we are trying to protect."

Mr. Eastman then turned to a defense of the "home front," referring to the fact that "the country is full of talk right now about the confusion, disorder, and inefficiency in the conduct of the war at home, in contrast to the situation on the battle front. "That there is much which is open to just criticism is quite true," he said, "and I do not except my own department. . . . At the same time the flaws in the 'home front' organization ought not to blind the country to the fact that the 'battle front' performance could not possibly be what it is unless some mighty effective work had been done by some one back home." Nevertheless, he added, the present emergency is "no time for the pressing of contentions and self-seeking claims, and I do not believe that the great majority of the people want them to be pressed. Some of our politicians, labor leaders, farm spokesmen, and other purported representatives of special groups are likely to find this out in due course. They would be wiser to realize it now."

## 5,000 Box Cars to be Built

The War Production Board has authorized the construction of 5,000 box cars in the latter part of this year and the early months of 1944 and may allot sufficient materials for the construction of 6,000 more, according to R. E. Clark, manager of the Closed Car section of the Association of American Railroads, in an address before the quarterly meeting of the Mid-West Shippers Advisory Board at Chicago on July 8.

The board's campaign to get more freight cars and other equipment for the railroads was supported by a message from Joseph B. Eastman, director of the Office of Defense Transportation, which reiterated his previous statements that serious consequences may result if the ODT's requests for materials and equipment for the railroads are not met by the War Production Board. He added that the ODT will continue to press vigorously for more equipment, not only for the railroads but for the other forms of transportation.

How serious the car situation may become was indicated by W. F. Kirk, chairman of the Advisory Committee on Traffic Control of the Western Association of Railway Executives, who predicted that the war in the next year will cause increases in westbound freight traffic ranging from 7 to 50 per cent. He said that traffic volume in April on some Western railroads equalled the high for October, 1942, and that since April the volume has increased further. The volume in the week ending July 2, he continued, exceeded any movement to date since the war began. Terminal movements have increased as much as 40 per cent, he said, with that through Los Angeles, Calif., on July 2 exceeding anything thus far.

"I am not critical of WPB," Mr. Kirk stated, "but I think we should recognize two things. First, the time has come when our boys should have the goods to finish this job and second, transportation agencies must have the equipment to get the goods to the boys."

The meeting was told by O. C. Castle, associate director of the Division of Railway Transport of the ODT, that "an order of some kind will be issued by the ODT or the Interstate Commerce Commission in the near future to insure complete unloading of cars of all classes unless there is substantial improvement in the condition of released cars. He said that failure of consignees to remove dunnage and debris materially affects available car supply and places an unwarranted burden on switching services.

It was pointed out by A. H. Schweitert, chairman of the Vigilance Committee on Car Efficiency of the board, that great improvement in car detention has taken place in the second quarter of 1943 compared with the first quarter. In the Chicago area the number of violations declined from 1,075 to 646. The average detention time in days for loading and unloading of cars in this area at the end of May was 1.27, he reported, and the percentage of cars held more than 48 hours was only 11.6.

To ease the tight equipment situation, J. J. Mahoney, chairman of the Railroad Contact committee, urged shippers to make still greater use of refrigerator cars westward. This releases box cars for vital war freight, he pointed out, and the same cars can be immediately loaded with perishables for eastbound movement. He said that the use of refrigerator cars has already increased from 50 to 200 daily.

Sporadic shortages in flat cars, ordinary box cars and end door box cars were reported by W. D. Beck, regional manager of the Car Service division of the A. A. R. He said a recent innovation in the Chicago district was a "goon" squad of seven or eight men who walk the yards constantly to save "not car days but car hours."

## Antitrust Division Asks Voice in Air Line Proposals

In the course of enforcing antitrust statutes prohibiting monopolisic practices, it says, the Antitrust Division of the Department of Justice has sought to intervene in proceedings before the Civil Aeronautics Board in which certain surface transportation operators have requested authority to engage in air transportation. Among the applications in which intervention is planned, with the board's permission, are those of the Kansas City Southern Transport Co., affiliated with the Kansas City Southern; Keeshin Air Freight, Inc., a subsidiary of Keeshin Freight Lines; the Greyhound Corporation; and the Burlington Transportation Co., a subsidiary of the Chicago, Burlington & Quincy.

# GENERAL NEWS

## Rail Revenue Indices Continue on Upgrade

### I.C.C. Bureau's May freight index was 233.6; passenger figure was 413.1

Railway revenue indices based on 1935-39 averages as 100 are continuing on the upgrade, the May index of freight revenue being 233.6 while the passenger-revenue index stood at 413.1, according to the latest issue of the Monthly Comment on Transportation Statistics issued by the Interstate Commerce Commission's Bureau of Transportation Economics and Statistics. The former figure was up 5.8 points from the previous month, while the passenger revenue index was up 18.9 points.

As the Bureau pointed out, this showing was made notwithstanding the reduction in freight rates on May 15 and the partial suspension of coal mining due to strikes. Moreover, May had five Sundays as well as the Memorial Day holiday. Its freight revenues were 17.6 per cent about those of May, 1942, while passenger revenues were up 79.7 per cent. For the 12 months ended with May, the total operating revenues amounted to $8,408,000,000.

Giving a net income figure of $1,103,000,000 for the 12 months ended with April, the Bureau calculates that the Class I roads in that period earned at the rate of 13 per cent of the par value of their capital stock. It adds, however, that "notwithstanding the net income of over one billion dollars the dividend declarations by the Class 1 railways for the same period were restricted to approximately $200,000,000."

The discussion of operating expenses points out that this year's figures have included some accruals for anticipated wage increases; although "such accruals were not general, there being a difference of opinion among the railroad accountants as to whether to accrue or not to accrue for the possible higher wage level." Meanwhile, May's operating expenses were 21 per cent higher than for May, 1942, but the operating ratio was nevertheless down from 62.5 to 59.8.

Noting how new depreciation and retirement charges are affecting maintenance accounts, the Bureau turns to man-hour figures for an index of "the extent to which expenditures for repairs and replacements are actually being made as distinguished from the accruals therefor." For the first four months of this year the number of man-hours (actually worked plus overtime paid for of men on an hourly basis) applied in maintenance of way and structures was 26.9 per cent greater than in the same period of 1942. For maintenance of equipment, the corresponding percentage is 13.9 per cent.

On the basis of the actual figures which show the second-quarter carloadings were 4.31 per cent under 1942's second quarter, instead of being up 2.5 per cent as estimated by the Regional Shippers' Advisory Boards, the Bureau now estimates that the second quarter's revenue ton-miles were up only 17 per cent from 1942's second quarter. This is a downward revision from its previous estimate of a 29 per cent rise, noted in the *Railway Age* of May 15, page 968. The average number of net ton-miles per freight car day in April "nearly reached the best record in 1942," being 1,035 as compared with October, 1942's 1,042.

Commenting on recent financial results of Railway Express Agency operations, the Bureau points out that, for the first four months of 1943, the charges for the transportation of express matter amounted to $107,723,000, "which was 43.4 per cent greater than the total for the corresponding period in 1942, and was more than double the corresponding total in 1939." Meanwhile, operating expenses totaled $55,563,000 while payments for express privileges amounted to $48,984,504.

### Another Northern Intervention in General Rate Case

The Interstate Commerce Commission has granted the Pennsylvania State Chamber of Commerce's petition for leave to intervene in the Nos. 28300 and 28310 investigations of the class rate structure and Consolidated Freight Classification.

### C. P. R. Air Lines Open New Station at Victoria, B. C.

The Canadian Pacific Air Lines has opened a new ticket office in downtown Victoria to facilitate the movement of air traffic between Victoria, B. C., and Vancouver. Nearly 1,300 air passengers were carried between those two cities during the month of June and, according to the road, traffic is steadily increasing.

### Reed Reappointed to Railroad Retirement Board

M. Roland Reed has been nominated by President Roosevelt as a member of the Railroad Retirement Board for another five-year term from August 29. The nomination went to the Senate on July 8, but had not been acted upon when Congress got away for its Summer recess. Mr. Reed, a former Pennsylvania Mechanical Department officer, is railroad management's representative on the Retirement Board.

## How C.N.R. Could Make Postwar Jobs

### Road outlines a $640,292,000 program with 95,300,000 man-days of work

In response to an invitation from the Special Parliamentary Committee on Reconstruction and Re-establishment at Ottawa, Ont., the Canadian National has placed before the committee recommendations as to ways and means of providing the greatest amount of employment in the post-war period. The recommendations, including both self-liquidating and non self-liquidating projects, would involve an expenditure of $640,292,000 and direct employment amounting to 95,300,000 man days.

In his statement to the committee, R. C. Vaughan, chairman and president of the C. N. R., pointed out that his road was fully aware of the fact that the system directly and indirectly affected the livelihood of a great many people in Canada and that they were anxious to cooperate fully in all post-war plans He added, however, that the information they were about to present was based on the request of the committee for information which would indicate the amount of employment that might be provided on useful works if it should be necessary for the Government to appropriate public money in the post-war period to prevent unemployment and the figures were presented to the committee on that basis. He then introduced S. W. Fairweather, vice-president of research and development, who presented the actual report.

The report set forth that the Canadian National System was more than a railway system since its interests are tied up also with the air lines, steamships, ocean-going vessels, telegraph communications, hotels, and drydock and shipbuilding facilities. The system is, thus, one of the largest single consumers of goods and the largest employer of labor in Canada. The study is intended to deal with the capacity of the C. N. to furnish employment.

A total national income of $8,000,000,000 (approximately that presently attained) was used as the basis of deciding what total employment of the system could afford directly and indirectly and what employment could be offered to members of the armed forces returning to civilian life.

Estimating the total demands of the system for goods and services, as a measure of the direct and indirect employment afforded by it, and based on the above national income, it was estimated that operating and capital expenditures would

amount to $317,000,000 with an estimated 33,000,000 man days per year on the system's payrolls and further employment equivalent to 14,000,000 man days per year in supplying goods and services for the railway through ordinary channels of commerce—making a total of 47,000,000 man days per year. This does not take into consideration remote employment arising from secondary distribution of purchasing power.

Since a close correlation exists between national income and the volume of traffic handled by the system, and between the volume of traffic and total employment afforded, analysis indicated that each per cent increase in the national income would be accompanied by an 0.7 per cent increase in employment and that each per cent decrease in national income would be accompanied by an 0.75 per cent decrease in total employment. That is, normal total employment afforded by the system would increase or decrease with the national income, but at a slower rate.

The Canadian National System has 12,000 of its employees now serving in the armed forces and it is the intention of the C. N. to reinstate these employees when they are returned to civilian life. They expect, moreover, that they may find it possible to offer employment to other returned service men because of the number of married women, women now employed in jobs ordinarily filled by men, juveniles and superannuated employees, numbering about 6,000 who are now in railroad service. Catching up on deferred maintenance work may also afford an opportunity for further employment. The company has accumulated a reserve against this deferred maintenance which will be used when labor and materials are again available. The report states that it would probably take from three to five years to catch up on this work and the direct employment afforded would be about 4,500,000 man days (3,100,000 man days on the railway and 1,400,000 man days in furnishing materials). It is believed also that there will probably be some need for part-time workers—which would add to the general pool of employment.

Mr. Fairweather gave several reasons for believing that the railway is an excellent medium for a program of controlled capital expenditures—among them its long continuity of existence and the fact that the normal relationship of capital invested in a railway to its revenue is on a much higher basis than in industry at large.

But the Canadian National for many years has undertaken only such capital works "shown to be clearly remunerative or unavoidable." The program presented, the report point out, goes far beyond this scope because the majority of the projects could not be considered as self-liquidating, and it is presented mainly in answer to the Committee's desire to secure such information.

The program has been divided into four groups of projects: (1) Those which expand the company's field of operations; (2) those which are so productive of economy as to be self-liquidating; (3) those which are generally desirable but are marginal in character in that it would be doubtful if the economies to be realized would be more than sufficient to pay interest on the capital; and (4) those which having desirable features are not productive of economy sufficient to pay interest on the capital. The total cost of projects in group number one would amount to $59,500,000 with direct employment which would afford about 8,800,000 man days. Group two would cost $206,773,000 with employment of 30,800,000 man days. Group three would cost $270,482,000, with 40,200,000 man days and group four would amount to $103,537,000 with 15,500,000 man days—a total expenditure of $640,292,000 and direct employment amounting to 95,300,000 man days.

It is pointed out, however, that it is only with regard to the second group that a clear case can be made out for the railway bearing the full cost of the work and even in this case financial considerations, may make for a policy of capital restrictions. In the other classes of expenditures some form of assistance would seem in order. For instance, the report reveals, it has long been recognized that expansion of pioneering railways generally results in losses to the railway, although the country as a whole may benefit substantially. Also while groups three and four may have elements which are advantageous to the country at large, such as the elimination of grade crossings, etc., they add little to the railway's net earning capacity. It is suggested that one of the problems of a large scale capital expenditures designed to relieve unemployment would seem to be some means of evaluating the extent to which the burden of capital expenditures would be laid on the railway.

## S. P. Requires Coach Reservations

Effective July 17, passengers traveling by coach on the Southern Pacific System are required to make advance reservations. This applies to service men, who are given preference, as well as to other passengers. The coach reservations are made for specific trains but not for specific cars or seats.

## More Time for No. 28300 Briefs

The Interstate Commerce Commission, by Division 2, has extended to August 12 the time within which briefs may be filed and served in its class rate and consolidated freight classification proceedings, Nos. 28300 and 28310.

## Containers Speed Shipments of Aircraft Parts

A report released recently by the Fisher Body Division of the General Motors Corporation shows that new developments in shipping of aircraft parts and sections has resulted in a considerable saving in freight car time. Under the set-up, using steel containers which are elastically supported in freight cars on rubber mounted casters, designed especially to handle this type of material, the daily average shows a movement of approximately 190 miles per car. The Fisher statement compares this to the 1941 national average of 44 miles, calculating that the daily movement of the cars involved is up 400 per cent.

The new method of shipment has also resulted in a saving in time in car loading and unloading. Formerly from two to three days would be necessary to outfit cars with wooden frames to securely hold the parts in a safe position for transportation. Today cars are loaded and under way within an hour and unloading is equally simple.

## Club Meetings

The New York Chapter of the Railway and Locomotive Historical Society held a meeting on July 16 at the Pennsylvania Railroad Y.M.C.A., with Jack Davis of the Crucible Steel Company as guest speaker.

## Tap Line Divisions

The Interstate Commerce Commission on July 1 issued a supplemental order in the Tap Line Case (I. & S. Docket No. 11), bringing tap-line allowances or divisions into line with its recent order suspending the Ex Parte 148 increases.

## New Public Relations Director for Transport Association

Anthony G. Allison has been appointed director of public relations of the Transportation Association of America, with headquarters at Chicago. For the past two years, Mr. Allison has been director of the Division of Integration of the Board of Investigation and Research, established by the Transportation Act of 1940.

## N. W. Shippers Advisory Board to Meet July 22

The sixty-sixth regular meeting of the Northwest Shippers Advisory Board will be held at the Hotel Duluth, Duluth, Minn., on July 22. V. V. Boatner, director of the Division of Railway Transport, Office of Defense Transportation, will address the members at a luncheon. Other addresses will include: The Grain Transport Situation in the Northwest by E. J. Grimes, vice-president of Cargill, Inc., and National Transportation Conditions and Car Supply, by R. E. Clark, manager, Car Service Division, Association of American Railroads.

## Canadian Roads Doing Good Job on Wheat Movement

Canadian railways are doing a remarkable job on the wheat movement, according to Dominion Agriculture Minister James Gardiner, who cited achievements of the carriers in a recent speech in the Canadian House at Ottawa. Grain moved from lake head since April 26, this year, by water, to July 5, was 111,838,000 bushels as against 102,408,000 bushels from March 30, 1942, or nearly 20,000,000 bushels more this year than last, he pointed out. Loaded at lake head for all-rail movement to Eastern ports, August 1, 1942, to date 30,000 were carloads, as against 19,200 carloads in the previous corresponding period.

"Since April 26 this year," said the Min-

ister, "a particularly good job has been done by the railways. But the fact still remains that we have 20,000,000 bushels of oats and barley from last year's crop which ought to be moved out of Western Canada and should have been moved by some means if it were at all possible before the new crop comes, and you can see the importance of getting that done between now and the middle of August."

## Uniform Rate Bill

Another uniform rate bill has been introduced in Congress—H. R. 3172, sponsored by Representative Harris, Democrat of Arkansas. Mr. Harris called attention to his bill in July 7 House speech wherein he advocated Congressional action on the matter. The Interstate Commerce Commission, he said, "has generally assumed a judicial attitude by considering matters only when complaint is made or filed."

## Pension Act Amendment

Senator Langer, Republican of North Dakota, has introduced S. 1313, a Railroad Retirement Act amendment which would provide that an individual shall be deemed to have been an employee on the enactment date, and entitled to an annuity, if prior to such date he had attained the age of 65 years and rendered 30 years or more of service to one or more employers subject to the Act.

## Two Cotton Belt Trains to Use Douglas MacArthur Bridge

The Municipal Bridge Commission, St. Louis, Mo., has recommended that the Board of Public Service grant a permit to the St. Louis Southwestern to run two passenger trains daily over the Douglas MacArthur bridge across the Mississippi river. Each train will save about 10 miles per trip in comparison with the present route used to enter St. Louis.

## Equipment Depreciation Orders

Equipment depreciation rates for the Narragansett Pier and the Verde Tunnel and Smelter Company have been prescribed by the Interstate Commerce Commission in recently issued sub-orders in the depreciation rates proceeding. For the first named road, rates prescribed are: Locomotives, 11.66; freight train cars, 4.02; passenger train cars, 9.66. For the second road: Locomotives, 2.37; freight train cars, 2.83; and work equipment, 2.39.

## I. C. C. Reopens Ex-Barge Grain Rate Case

Acting on petitions filed subsequent to the United States Supreme Court decision in the so-called ex-barge grain proportional rate case, and pointing out that its report in the proceedings had suggested that proper proportional rates might be prescribed for such traffic on application, the Interstate Commerce Commission has reopened its I&S No. 4718 proceedings for further consideration, ordering a public hearing in Chicago to begin August 16 before Examiner Fuller

As reported in *Railway Age* of June 19, page 1235, the commission was upheld by the court in its view that grain arriving at Chicago by barge and moved eastward by rail was not as a matter of law entitled to the same reshipping rates as were applied to grain reaching Chicago by rail or lake vessel. For want of previous application for proportional rates to apply to such movements ex-barge grain has moved east on local rates, if at all, a situation giving rise to acid comment in Congress recently, as indicated in *Railway Age* of July 10, page 68.

The commission's order reopening the proceedings indicated that the lawfulness and reasonableness of proportional rates on ex-barge grain would be considered, based on evidence offered to permit the commission to perscribe reshipping rates "predicated on the particular circumstances and conditions which surround its transportation."

## Belated Appropriation Bills Signed by President

Though delayed beyond the beginning of the new fiscal year by the inability of the House and Senate to agree on certain controversial questions involving other government agencies, bills providing appropriations for the fiscal year 1944 operations of the Office of Defense Transportation and the Railroad Retirement Board have been passed by Congress and signed by President Roosevelt.

As enacted, the War Agencies Appropriation makes the same provision for the ODT as the House bill, as the Senate made no changes in this organization's funds and its appropriations committee held no hearings on the section of the bill providing them. Thus $14,650,000 was made available for the year's operations of this agency.

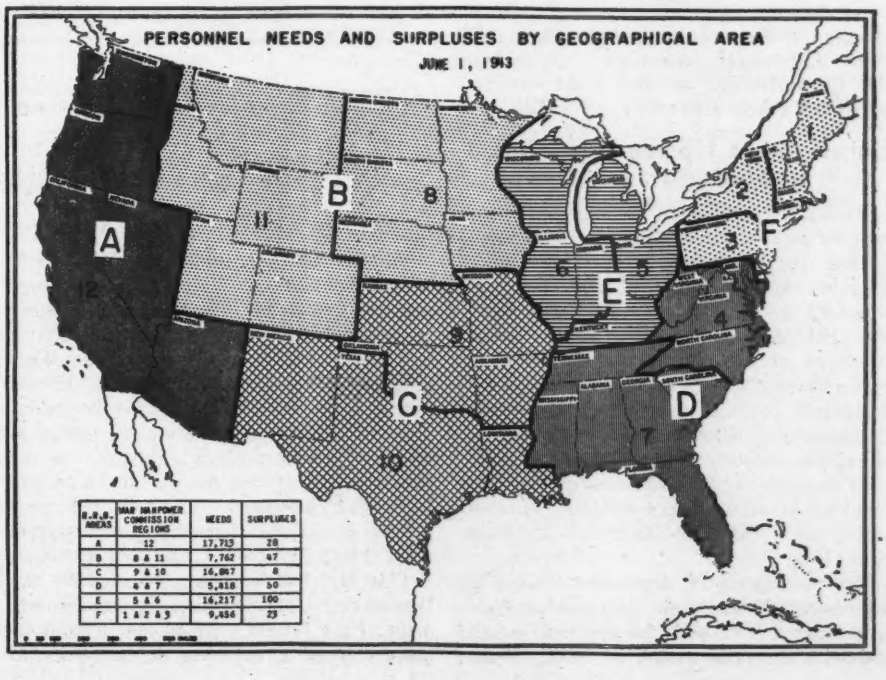
In the Senate appropriations committee the Railroad Retirement Board received somewhat more generous treatment than the House had accorded it, and the Labor-Federal Security Appropriation as passed by the Senate and enacted into law embodied the committee's recommendations. Where the House had cut the provisions for RRB salaries and expenses under the impression that the board was prepared to meet added costs arising from overtime pay legislation through savings to be effected by reducing its staff, the Senate committee restored $323,231 to the appropriation for this purpose after the board's chairman, Murray W. Latimer, explained that the staff reductions had already been taken into consideration in setting up the budget provision for this item. An additional $40,000 for miscellaneous expenses also was approved by the Senate committee, which again restored the figures provided in the budget. The total appropriation for the RRB's salary and expense account was thus $2,554,000, instead of the $2,190,769 provided in the House version of the bill.

A provision in the House bill which limited payments to any one referee employed by the National Railroad Adjustment Board to $2,500 during any one year was stricken out by the Senate, which adopted its committee's recommendation in this respect. The appropriation for the National Mediation Board and the National Railroad Adjustment Board was unchanged from the House bill's provision of $490,000.

## Personnel Needs Continue Critical

Employment needs of the railroad industry continue critical, according to the June 1 report of the United States Retirement Board on Personnel Needs and Surpluses in the Railroad Industry. The total needs of the industry, according to the report, were 80,193 persons, or an increase during May of about 2,900 persons. The increase during March was 12,029 persons and during April, 10,696 persons.

"The great increase in personnel needs during March and April, 1943," the report states, "was no doubt due in part to seasonal expansion, but recent studies show that seasonal fluctuation is not as important a factor as in previous years. While the recent trends are of immediate sig-




| R.R.B. AREAS | WAR MANPOWER COMMISSION REGIONS | NEEDS | SURPLUSES |
|---|---|---|---|
| A | 12 | 17,715 | 28 |
| B | 8 & 11 | 7,762 | 47 |
| C | 9 & 10 | 16,867 | 8 |
| D | 4 & 7 | 5,816 | 50 |
| E | 5 & 6 | 16,217 | 100 |
| F | 1 & 2 & 3 | 9,456 | 23 |

nificance, they are minor in relation to a comparison between present employment figures and those of a few years ago. When we consider that at the 1940 rate of productivity it would require about 2,050,000 employees of Class I railroads to handle the volume of traffic now handled by some 1,313,000 employees—a difference of approximately 700,000—the reported need of only 73,413 among the 173 reporting carriers is certainly less than might have been expected.

"The Board's employment service is continuing to put forth maximum efforts to supply needed personnel, and placed, during May, a total of 18,493 railroad employees exclusive of Mexican laborers recruited and imported from Mexico.

"The June needs and surpluses in each of six occupational groups are summarized below. Relatively small changes occurred in the needs within each group with the exception of Maintenance of Equipment and Stores in which reported needs decreased by 3,847. The Maintenance of Way and Structures group continues to show the greatest shortage, 60.5 per cent of the total.

| Occupational Group | No. | Needs Per Cent | Surpluses |
|---|---|---|---|
| I Executive, Official & Professional | 195 | 0.3 | 0 |
| II Clerical | 1,157 | 1.5 | 3 |
| III Maintenance of Equipment & Stores | 19,192 | 26.1 | 20 |
| IV Maintenance of Way & Structures | 44,350 | 60.5 | 0 |
| V Transportation | 8,262 | 11.2 | 201 |
| VI Miscellaneous | 257 | .4 | 32 |
| Totals | 73,413 | 100.0 | 256 |

"The needs by areas, as indicated in the accompanying map, show rather interesting changes. Areas A, C and D, which include the whole South and West of the United States, show substantial increases in shortages, the largest, 3,710, occurring in Area C. Areas E and F show decreases in personnel needs of 1,366 and 6,176 respectively. These large decreases no doubt reflect the fact that our report does not include the needs of the Pennsylvania in these areas. If we consider the needs of the Pennsylvania as approximately 7,500, there appears to have been very little change in these areas during May. In Area B, however, which does not include the Pennsylvania, we find a decrease in personnel needs amounting to 2,642."

## Employment Uptrend Continued Through June

Railroad employment increased 2.4 per cent—that is, from 1,349,176 to 1,381,560—during the one-month period from mid-May to mid-June, while the mid-June total was 6.83 per cent greater than the comparable 1942 figure, according to the latest summary of preliminary reports prepared by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. The bureau index number of railway employment, based on the 1935-1939 average as 100 and adjusted for seasonal variation, was 135.4 for June, as compared with 132.2 in May and 133.5 in June, 1942.

Every category of employment listed in the report showed some increase in June as compared both with the previous month and with the same month of 1942. From May, the largest increase was in the maintenance of way and structures group, where it was 7.39 per cent; the professional, clerical and general group showed a 1.66 per cent increase in the same period; while the smallest relative increase in the month was in train and engine service, where it was 0.07 per cent. As compared with June, 1942, the largest relative increase was 11.57 per cent in the yardmasters, switchtenders and hostlers group, while the professional, clerical and general group showed a 10.6 per cent increase. Over the 12-month period, the smallest relative increase was 3.04 per cent shown by the maintenance of way and structures group.

## May Accident Statistics

The Interstate Commerce Commission on July 10 made public its Bureau of Transportation Economics and Statistics' preliminary summary of steam railway accidents for May and this year's first five months. The compilation, which is subject to revision, follows:

| Item | Month of May 1943 | Month of May 1942 | 5 mos. ended With May 1943 | 5 mos. ended With May 1942 |
|---|---|---|---|---|
| Number of train accidents* | 1,222 | 1,034 | 6,916 | 5,147 |
| Number of casualties in train, train-service and nontrain accidents: | | | | |
| Trespassers: | | | | |
| Killed | 180 | 179 | 657 | 686 |
| Injured | 158 | 139 | 574 | 585 |
| Passengers on trains: | | | | |
| (a) In train accidents* | | | | |
| Killed | 12 | .. | 15 | 12 |
| Injured | 434 | 36 | 1,060 | 423 |
| (b) In train-service accidents | | | | |
| Killed | 6 | .. | 22 | 10 |
| Injured | 222 | 141 | 1,033 | 794 |
| Travelers not on trains: | | | | |
| Killed | 3 | 2 | 8 | 4 |
| Injured | 71 | 57 | 455 | 305 |
| Employees on duty: | | | | |
| Killed | 81 | 59 | 409 | 357 |
| Injured | 3,461 | 2,603 | 18,020 | 12,294 |
| All other nontrespassers:** | | | | |
| Killed | 125 | 173 | 857 | 938 |
| Injured | 514 | 477 | 2,876 | 2,938 |
| Total — All classes of persons: | | | | |
| Killed | 407 | 413 | 1,968 | 2,007 |
| Injured | 4,860 | 3,453 | 24,018 | 17,339 |

* Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former cause damage of more than $150 to railway property.

**Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties *for all classes of persons, including both trespassers and nontrespassers,* were as follows:

| | | | | |
|---|---|---|---|---|
| Persons: | | | | |
| Killed | 119 | 155 | 751 | 855 |
| Injured | 301 | 303 | 1,739 | 2,150 |

## Guffey Coal Act to Expire

Failure of the Rules and Ways and Means Committees of the House of Representatives to give the House an opportunity to vote upon a proposal for a further extension of the life of the Bituminous Coal Act of 1937, generally known as the Guffey Coal Act, before the beginning of the summer recess of Congress apparently will result in expiration of the provisions of the act August 23. Stop gap legislation previously had effected temporary extensions of the life of the statute from April 26.

This law has been administered by the Bituminous Coal Division of the Department of the Interior, which has derived its powers from it, including its authority to establish price "floors" for bituminous coal, to foster "co-operative associations" of coal producers, and to intervene before or file complaints with the Interstate Commerce Commission in proceedings involving rates and practices relating to the transportation of bituminous coal.

## Freight Car Loading

Loadings of revenue freight for the week ended July 10, which included the fourth of July holidays, totaled 808,630 cars, the Association of American Railroads announced on July 15. This was a decrease of 43,476 cars, or 5.1 per cent, from the preceding week, a decrease of 46,528 cars, or 5.4 per cent from the corresponding week last year, and a decrease of 67,512 car, or 7.7 per cent below the comparable 1941 week.

Loading of revenue freight for the week ended July 3 totaled 852,106 cars and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

### Revenue Freight Car Loadings

For Week Ended Saturday, July 3

| | 1943 | 1942 | 1941 |
|---|---|---|---|
| Eastern | 162.895 | 141,152 | 146,126 |
| Allegheny | 170.960 | 165,698 | 158,977 |
| Pocahontas | 55,638 | 36,432 | 40,178 |
| Southern | 114.392 | 108,595 | 102,146 |
| Northwestern | 142.744 | 125,439 | 126,994 |
| Central Western | 131.515 | 114,412 | 114,456 |
| Southwestern | 73,962 | 62,012 | 51,482 |
| Total Western Districts | 348,221 | 301,863 | 292,932 |
| Total All Roads | 852,106 | 753,740 | 740,359 |
| Commodities | | | |
| Grain and grain products | 60,479 | 42,342 | 50,921 |
| Live stock | 11,757 | 9,515 | 7,970 |
| Coal | 145,198 | 120,297 | 93,858 |
| Coke | 12,856 | 12,578 | 12,638 |
| Forest products | 44,618 | 44,431 | 37,287 |
| Ore | 89,692 | 85,947 | 71,756 |
| Merchandise l.c.l. | 100,596 | 82,044 | 138,611 |
| Miscellaneous | 386,910 | 356,586 | 327,318 |
| July 3 | 852,106 | 753,740 | 740,359 |
| June 26 | 760,844 | 853,418 | 908,604 |
| June 19 | 868,241 | 844,913 | 885,539 |
| June 12 | 854,486 | 832,635 | 862,974 |
| June 5 | 667,575 | 854,689 | 852,940 |
| Cumulative Total, 27 Weeks | 20,949,128 | 21,817,141 | 20,591,091 |

In Canada.—Car loadings for the week ended July 3 totaled 62,369, as compared with 67,734 for the previous week and 60,368 for the corresponding week a year ago, according to the compilation of the Dominion Bureau of Statistics:

| | Total Cars Loaded | Total Cars Rec'd from Connections |
|---|---|---|
| Total for Canada: | | |
| July 3, 1943 | 62,369 | 36,492 |
| June 26, 1943 | 67,734 | 40,340 |
| June 19, 1943 | 68,120 | 40,356 |
| July 4, 1942 | 60,368 | 37,319 |
| Cumulative Totals for Canada: | | |
| July 3, 1943 | 1,694,383 | 996,906 |
| July 4, 1942 | 1,699,567 | 875,841 |
| July 5, 1941 | 1,550,681 | 787,751 |

## Court Upholds I.C. Fare Rise

On July 12, the 10 per cent increase in suburban passenger fares put into effect by the Illinois Central in March, 1942, was upheld by Judge Peter H. Schwaba in the Superior Court in Chicago. The judge found that the Illinois Commerce Commission had exceeded its powers in forbidding the increase but agreed not to enter his ruling until the assistant attorney general (Illinois), Stephen M.

Fleming, had time to prepare arguments for a return of the case to the Illinois Commerce Commission. The Illinois Central had increased 80 per cent of its suburban fares 10 per cent in March, 1942, and the remainder were increased when an injunction order was entered early this year.

## Approves Truck Joint Action

Among truck joint action plans approved by the Office of Defense Transportation recently, to become effective July 19, under Supplementary Order ODT 3, was one submitted by Adams Transfer & Storage Company and the Santa Fe Trail Transportation Company, controlled by the Atchison, Topeka & Santa Fe, for the coordination of certain l.t.l. shipments between Kansas City, Mo., and various points in Kansas. This plan for the conservation of manpower and equipment is expected to save 236,520 truck miles annually, it was explained.

## Express Agency Reduces Air Express Rates

Effective July 15 air express rates were given a base reduction of 12½ per cent, with an overall reduction averaging 10½ to 11 per cent, according to an announcement by the Railway Express Agency. The reduction does not affect the present minimum charge of $1.00 per shipment and does not affect rates applying between points within continental United States and points in Canada and Newfoundland. The reduction amounts to 12 cents per lb. on traffic between New York-Los Angeles and other west coast points.

## New Mo. Pac. Reorganization Plan Submitted July 16

A compromise plan for reorganization of the Missouri Pacific has been agreed upon by the two largest securities committees and was submitted to Judge George H. Moore of the federal district court at St. Louis on July 16. It is reported that the new plan will utilize some of $54,000,000 in cash to improve the treatment of practically all classes of security holders without increasing total capitalization in excess of that approved by the Interstate Commerce Commission in its plan, which is $560,478,900.

## New System Set Up for Truck Fleet Operating Reports

A new procedure to be followed by designated operators of truck fleets in making reports to the Office of Defense Transportation on current operations went into effect July 1, it was announced last week. Under it, certain operators will be required to submit such reports to the ODT monthly. The new procedure will replace the quarterly operation reports previously required of all fleet operators.

The ODT will select and notify before August 1 the truck operators who will be required to make the monthly reports, it was explained. Such reports will be due August 10, covering operations in July. The number and the business of the truckers who will be required to make monthly reports will vary with conditions, it was pointed out, as the ODT finds them needed to aid the industry in getting sufficient supplies and equipment to avert breakdowns, either locally or nationally. The reports also will enable the ODT to "maintain current checks on the efficiency of truck operations, the effects of ODT orders and regulations, freight movements trends and truck gasoline consumption," the announcement added.

It was emphasized that adoption of this procedure will not relieve fleet operators from filing quarterly reports before the end of July covering operations in the second quarter of this year, as required before.

## No More Temporary Gas Rations

Provisions in the gasoline rationing regulations for the issuance of temporary transport rations have been revoked by the Office of Price Administration, effective July 16, because the need for such emergency arrangements has passed, it was announced last week. Such temporary rations were allowed commercial motor vehicle operators when gasoline rationing was undertaken so they could continue operations while awaiting action on final determinations of the mileage allowances under certificates of war necessity issued by the Office of Defense Transportation.

## Wins Recognition for $311,500 in War Bond Sales

A. S. Rosenbaum, retired district freight and passenger agent of the Southern Pacific at Medford, Ore., has been issued a certificate by the district U. S. Treasury War Finance Committee as recognition of his efforts in selling $311,500 in war bonds to date. Of this amount $116,000 worth of war bonds has been purchased through the Medford Rotary Club as the result of a plan instigated by Mr. Rosenbaum of having one member buy a bond at each meeting. Usually several bonds are sold at each meeting.

## Airlines Reduce Fares

Several airlines, including the United Air Lines, American Air Lines, Inc., Transcontinental and Western Air, Inc., and Braniff Airways have announced reduction in passenger fares ranging from 5 to 17 per cent, effective July 15. A fourth, Northwest Airlines, Inc., announced it would make no changes from its present rate structure because its fares have been lower than those of the above companies. According to W. A. Patterson, president of United Air Lines, the lower rates are not being put in as a business getting device, "but are attributable to the sharp wartime increase in the number of passengers per plane and the greater utilization of equipment." The reduction follows proceedings conducted by the Civil Aeronautics Board on June 15, to determine whether there should be a reduction in plane passenger fares. At that time, the board excused American Air Lines, Eastern Air Lines, Inc., Transcontinental and Western Air, Inc., and United Air Lines from the proceedings because they were preparing the new schedules at that time.

From coast-to-coast flights, the fare will be $138.85 insteal of $149.95; from Chicago to New York, $38.85 instead of $44.95; from Chicago to the Pacific Coast, $100 instead of $105; from Chicago to Denver, Colo., $46.40 instead of $51.47; from Chicago to Kansas City, Mo., $20.85 instead of $21.50; and from Chicago to San Antonio, Tex, $59.50 instead of $61.85.

## 3,427 Women Work on Santa Fe

Latest figures reveal that 3,427 women are on the payroll of the Atchison, Topeka & Santa Fe system, with approximately 35 per cent of these assigned to jobs normally handled by men. In the various Santa Fe shops they serve as engine wipers, lubricators and helpers to machinists, blacksmith, sheet metal workers and electricians and they operate railroad turntables, steam hammers and drill presses. One of the departments in which there has been a large proportional increase in the number of women employees, doing work formerly done only by men, is the telegraph department. Formerly the employees in this department were all men, except the PBX operators and an occasional messenger. Today, out of approximately 1,431 employees in this department, 210 are women.

## Disapproves Increased Rates on Iron and Steel for Export

The Interstate Commerce Commission, Division 3, has ordered the cancellation of suspended schedules wherein the railroads were proposing increased rates on iron and steel articles, including tin plate and terne plate, in carloads, from Eastern, Southern and Western points to Pacific coast ports, for export, and on tin plate and terne plate for re-export. The proposal would have left export tin plate and terne plate to move on domestic rates, while specific export rates on a higher basis than those presently in effect were proposed for the iron and steel articles.

For example, the present export rate from Chicago, applicable on all commodities involved, is 44 cents, while the domestic rate on tin plate is 77 cents and the proposed export rate on the iron and steel articles 80 cents. The proceeding is docketed as I. & S. No. 5136, and the adverse report, which finds that the new rates were not shown to be just and reasonable, was by Commissioner Johnson.

## I. C. C. Inquiry Into Authority Over Small Boats

The Interstate Commerce Commission has instituted an investigation to determine whether, and to what extent, the National Transportation Policy requires application of the provisions of Part III of the Interstate Commerce Act to transportation performed by water carriers by small craft of not more than 100 tons carrying capacity or not more than 100 i.h.p.

An order has been issued inviting briefs in favor of or in opposition to the removal of the exemption of such boats from the provisions of the statute. The proceedings have been docketed as Ex Parte 157, and briefs will be received until September 15. Whether there will be a hearing or argument will be determined after

consideration of reasons therefor advanced in briefs, the commission indicated.

The order points out that certain water carriers using small craft have established through routes with railroads, other water carriers, or truck operators,, while others, though they have not established through routes, are engaged in transportation competitive with that of water carriers subject to Part III of the Act.

## Coal Diverted to Steel Plants Hit by Mine Strikes

Acting under wartime emergency powers, Solid Fuels Administrator Ickes on July 12 ordered the diversion of 22,500 tons daily for six days of special purpose metallurgical coals—the type required in the manufacture of steel—from other users to steel plants ordinarily served from western Pennsylvania mines where production has been interrupted by strikes. The orders were directed to 13 producers in the Appalachian coal field, and more than 80 per cent of the diversion was from by-product coke and metallurgical plants that require coal of this quality but have adequate stocks on hand, the balance being obtained from general industrial consumers who can substitute other types of coal, Mr. Ickes pointed out.

## Illinois Central Lengthens Train Schedules 15 to 35 Min.

The Illinois Central has announced that effective July 11 the schedules of five of its passenger trains have been lengthened from 15 to 35 minutes, with correspondingly earlier departures from terminals. The purpose of the change is to insure on-time operation in the face of increased military and other travel and increased volume of war freight. The schedule of the "Creole" from Chicago to New Orleans, La., has been lengthened 35 min.; the "Seminole" from Chicago to Birmingham, Ala., 30 min.; the "Illini" from Chicago to Carbondale, 20 min.; the "Chickasaw" from St. Louis to Memphis, 10 min.; and the "Texas Limited" from Meridian to Shreveport, La., 15 min. A number of other changes in arrivals and departures have also been made in order to insure connections at principal terminals.

## Extends Federal-Aid Funds for Highways

Congressional action was completed last week on H. R. 2798, which amends federal-aid highway legislation to prevent reversion and reapportionment provisions from becoming operative during the wartime emergency and for a period of one year thereafter. Other provisions authorize the expenditure of $50,000,000 of the federal-aid money for future highway planning in cooperation with state authorities, and call for survey by the commissioner of public roads "of the need for a system of express highways throughout the United States, the number of such highways needed, the approximate routes which they should follow, and the approximate cost of construction."

Proponents of the legislation pointed out that unless the operation of the reversion and reapportionment provisions of the existing federal-aid law were stayed, the states would have to return $68,000,000 in unobligated balances as of July 1, while by July 1, 1944, the amount would become $171,000,000. The former figure includes $26,000,000 of grade-crossing funds while the latter includes $44,000,000 apportioned for that purpose.

The bill also provides an additional $17,500,000 for the construction of access roads to strategic materials, bringing to $27,500,000 the total thus far appropriated for that purpose. In addition, expenditures are authorized to reimburse states for repairs to roads damaged by the Army, Navy, or other agencies of the federal government; and for rehabilitation of highways damaged by floods, hurricanes, etc.

## I. C. Asks Return of Collateral from R. F. C.

The Illinois Central advised the Interstate Commerce Commission on July 13 that it intends to ask the Reconstruction Finance Corporation for the return of $81,828,884 in securities pledged as collateral for loans. R. F. C. loans to this road at one time totaled $37,137,000 and securities with a par value of $122,668,384 and an appraised value of $61,000,000 were pledged for the loans. These R. F. C. loans have been reduced to $20,000,000 and if the R. F. C. released the securities requested, the remainder pledged would have a par value of $40,389,000 and a present market value of $27,300,000.

A resolution of the executive committee of the I. C. stated that the return of securities in excess of those ordinarily required as collateral, would "improve the financial condition and credit of the company." The R. F. C. is said to have agreed in principle to the release of collateral but will be subject to the recommendations of the I. C. in that regard.

## I. C. C. Service Orders

By Service Order No. 135, to go into effect July 26, the Interstate Commerce Commission has set up a revised scale of demurrage charges to be applied on cars originating in or moving through the United States and destined to points in Mexico. After the expiration of the free time allowed by tariffs the demurrage charges will be $5.50 per car per day or fraction thereof for each of the first two days, and $22.00 per car per day or fraction thereof for each succeeding day, under this order, which applies to the following points: Bisbee Junction, Douglas, Yuma, Naco, and Nogales, Ariz.; Calexico and Division, Calif.; and El Paso, Laredo, Eagle Pass, Presidio, and Brownsville, Tex.

The order was issued because serious congestion has occurred at these points, the commission indicated, due to customs clearance and other delays. Railroads affected are advised to file tariff supplements making the necessary modifications, one day's notice being authorized.

Restrictions on icing refrigerator cars loaded with fresh or green vegetables imposed by the commission's Service Order No. 133 have been modified at the request of the Office of Defense Transportation through Amendment No. 1 to that order, the commission has announced. Railroads are now authorized to accept cars using top or body ice under the following conditions: (1) cars fitted with collapsible bunkers shall not be used unless the bunkers are collapsed; (2) cars not equipped with collapsible bunkers may be initially bunker iced, provided initial top or body ice does not exceed 10,000 lbs., but not otherwise.

Service Order No. 136, effective July 13 until further order of the commission, directed the Canadian National and Grand Trunk to forward freight routed over their lines between Sherbrooke, Que., and Island Pond, Vt., by the most available route, disregarding shipper's routing, due to a washout and flood conditions interrupting service on that line.

A July 14 press release of the War Food Administration called attention to the fact that requirements that potato shipments could be accepted by railroads or trucks only after shippers had obtained a permit from that agency, which had been imposed in Maine and in the southeastern states through I. C. C. service orders and subsequently lifted except for certain counties in North Carolina and Virginia, as previously noted in these columns, now have been entirely removed. While Food Distribution Order No. 49 is no longer operative, the statement points out, it remains in effect to meet any emergencies that may develop in the future.

## President Still Has Florida Canal in Mind

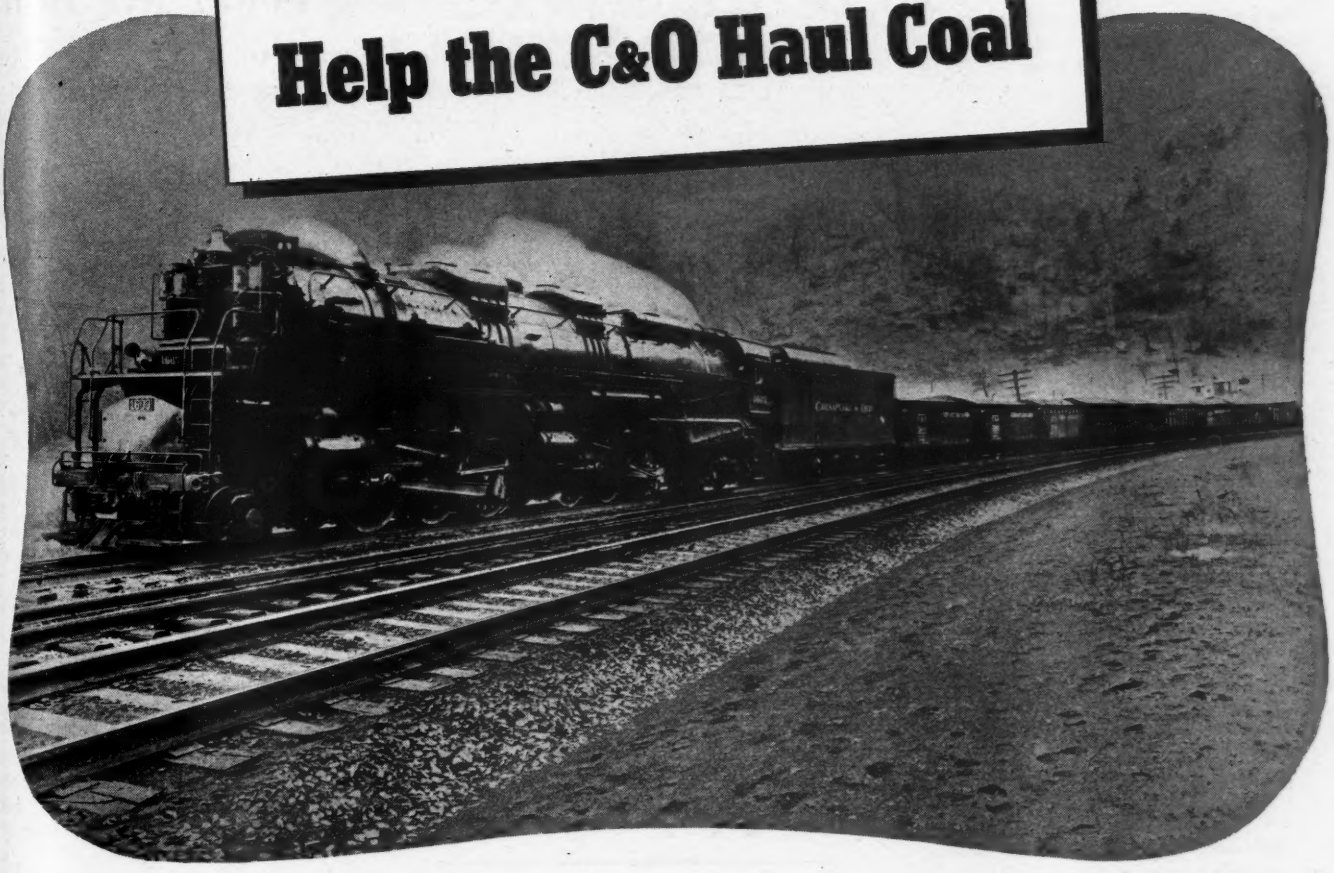
President Roosevelt in a recent letter to Chairman Mansfield of the House committee on rivers and harbors said that construction of the Florida Barge Canal will proceed as soon as shortages in manpower, materials and equipment can be overcome. The letter was in reply to one by Mr. Mansfield regarding what he conceived to be the need for improvement of the Atlantic-Gulf Intracoastal Waterway and in particular the need for the construction of the Florida canal.

"I have always realized," President Roosevelt said, "the importance of an adequate and continuous inland waterway for barge traffic along our Atlantic Seaboard and Gulf Coast. Upon authorization of such a waterway by Congress steps were taken promptly to initiate the improvement, and work has been carried on as fast as possible without interfering with the war effort. This work has consisted of large scale dredging operations along the existing sections of the waterway, which, without improvement, could not be used to full capacity. It is my intention to continue these dredging improvements during the next fiscal year.

"As yet, it has not been feasible to undertake work on sections of the waterway not now in existence, primarily because of shortages of manpower, materials and equipment. Detailed plans and specifications for the Florida Barge Canal will be prepared so that its construction can proceed without delay as soon as these shortages are overcome. While I cannot foretell how soon that will be, it is possible that the situation with respect to


*News Department continued on next left-hand page*

# More LIMA Power to Help the C&O Haul Coal



THE Chesapeake & Ohio R. R., one of America's outstanding carriers of coal, has just placed an order with Lima for 10 more of the famous 2-6-6-6, "Allegheny" type locomotives.

These powerful locomotives, duplicates of the 20 Limas already in service, will handle heavy coal freight traffic moving over the Allegheny Mountains between Clifton Forge, Va. and Hinton, West Va.

LIMA LOCOMOTIVE WORKS — LIMA LOCOMOTIVE WORKS INCORPORATED — INCORPORATED, LIMA, OHIO

these shortages will change sufficiently to permit an early dredging of the sea level sections of the canal, and I am accordingly, asking the Director of the Bureau of the Budget and the Chief of Engineers to keep me advised of any changes of conditions which would justify the inauguration of this work."

### Six Months' Export Traffic

Cars of export freight, other than grain, unloaded at Atlantic, Gulf and Pacific ports in the first half of 1943 totaled 603,313 cars compared with 417,370 cars in the same period last year, or an increase of nearly 45 per cent, according to the Association of American Railroads. Cars of grain for export unloaded in the first six months of 1943 at those ports totaled 29,055 cars, compared with 16,594 cars in the same period last year, or an increase of 75 per cent.

In the month of June this year, 118,781 cars of export freight, other than grain, were unloaded at all ports compared with 74,707 in June, 1942. Cars of grain for export unloaded in June this year totaled 6,504, compared with 1,799 cars in the same month last year.

The average daily unloading of export and coastal freight at all United States ports in the first six months of 1943 was 3,512 cars compared with 2,537 cars in the same period last year. The average daily unloading of 4,200 cars at all United States ports in June, 1943, was the heaviest for any month on record. The previous record was established in May, 1943, when the daily average was 4,122 cars.

### Competitive Bidding Argued Again Before I.C.C.

Defending as very favorable the terms under which a proposed $28,483,000 bond issue by the Pennsylvania, Ohio & Detroit, a subsidiary of the Pennsylvania, was underwritten by Kuhn Loeb & Company, a New York investment banking house, M. W. Clement, president of the Pennsylvania, outlined the course of the negotiations that led to the agreement to sell the securities at an Interstate Commerce Commission hearing July 8 at Washington, D. C., before O. E. Sweet, director of the commission's Bureau of Finance, and Examiner A. C. Devoe.

Mr. Clement was subjected to questioning by former Senator Robert J. Bulkley, counsel for Otis & Company, a Cleveland, Ohio, investment banking house that intervened in the proceedings as a Pennsylvania stockholder, in an effort to show that the issue could have been sold on terms more favorable to the railroad through competitive bidding. Mr. Clement brought out the point that the road's financial officers had determined the selling price and interest rate of the new bonds, and had closed the deal with Kuhn Loeb & Company as soon as that firm had agreed to the road's terms.

Another witness, G. H. Pabst, Jr., vice-president of the Pennsylvania and president of the P. O. & D., outlined the savings the road expects to realize from the proposed transaction, which, as outlined in *Railway Age* of July 3, page 38, involves retiring an existing 4½ per cent issue by use of the proceeds of the new issue. In addition to the reduction in interest charges, the retirement of the 4½ per cent bonds at a premium will enable the road to realize a saving of about $1,500,000 in its 1943 federal taxes, he pointed out.

Mr. Bulkley and witnesses representing Otis & Company and Halsey Stuart & Company, an associated middle western banking house, contended that, under certain conditions, the road could have marketed a 3½ per cent issue at par, the price obtained for the proposed 3¾ per cent bonds, or could have obtained better than par for the 3¾ per cent issue, if it had allowed the protesting banking firms to bid for the issue, rather than negotiating privately with Kuhn Loeb & Company to underwrite it.

Representatives of the railroad explained that the terms obtained represented a substantial saving to the road and, in their opinion, the price obtained was a fair one.

In this case, as in the proceedings before the commission earlier this year growing out of a refinancing proposal of the Erie —reported in *Railway Age* of March 6, page 478, and March 13, page 525—the protesting banking firms took the position that all railroad security issues should be sold through competitive bidding, but the commission, in granting permission to intervene in the case, ruled that the general question of competitive bidding would not be considered, but only the lawfulness and soundness of the transaction involved in the particular application before it.

## Supply Trade

**Peter J. Hickey,** general sales manager, has been elected vice-president of **Pantasote Co., Inc.**

**M. Frank Dresmal,** manager of machinery sales of the **United States Steel Supply Company,** has been appointed office manager of the Chicago sales department.

The Army-Navy "E" award for excellence in war production will be presented the officers and employees of the **Pettibone Mulliken Corporation,** Chicago, in ceremonies to be held at the plant on July 20.

**Marcello A. King** has joined the **Worthington Pump & Machinery Corporation** as executive engineer in charge of design, research, testing. and service, of its Moore Steam Turbine Division at Wellsville, N. Y.

**E. A. Koether,** works manager since 1936 of the **Koppers Company,** American Hammered Piston Ring Division, has been promoted to the newly created position of technical assistant to the vice president and general manager of the division. **Edgar S. Freeman, Jr.,** assistant sales manager, succeeds Mr. Kother as works manager.

# Equipment and Supplies

## Few Cars Ordered; Fewer Are Built

### Locomotive program calls for delivery of 456 steam and 450 Diesel engines

Railroad orders for new freight cars for domestic service during the first six months of 1943 totaled 15,051 units of which 11,750 were placed with contract car builders and 3,301 with railroad shops. Purchased from contract shops were 770 box, 8,650 hopper, 1,340 gondola and 990 flat cars. Orders from railroad shops included 1,000 hopper, 2,000 gondola and 301 flat cars. A detailed list of orders placed is set forth in the accompanying table.

Following the virtual cessation of new freight car purchasing during the final six months of 1942, due to limited government-authorized building programs, the railroads re-entered the market in January in large volume ordering 10,385 cars. Deliveries during that month from railroad and contract shops, however, barely topped 2,000 cars and each month thereafter failed to reach that number. New orders quickly dwindled to 980 cars in February, 1,936 in March, 1,200 in April, 500 in May and 50 in June.

In addition to the 15,051 cars ordered by the railroads, industrial companies and private car lines place orders for 353 cars for domestic service during the first six months of the year, comprising 107 gondola, 25 hopper, 17 flat, 200 tank and four dump cars and there were 439 cars ordered in the United States for export, exclusive of War Department orders, including 210 box, 38 tank, 16 dump and 175 ore cars. (The *Railway Age* is not permitted to report the number of cars ordered or built for U. S. Government Departments either for domestic service or for export.)

The total backlog of cars on order for domestic service at July 1, 1943, amounted to 36,142 units. Included in this number were 65 cars remaining to be delivered under the War Production Board's 18,000-car program for the final eight months of 1942 and 16,361 cars representing the undelivered balance of the 20,000 cars authorized by the WPB in November, 1942, for building during the six months ending June 30, 1943. In addition there were 19,716 cars without WPB approval to build. The 36,142 cars on order were allocated; 26,783 to contract car builders, including 1,700 auto, 4,324 box, 4,490 gondola, 13,526 hopper, 1,671 ore, 875 flat, 172 tank and 25 caboose cars, and 9,359 to railroad shops, including 100 auto, 750 box, 3,000 gondola, 3,558 hopper, 401 flat, 200 stock, 1,200 refrigerator and 150 caboose cars.

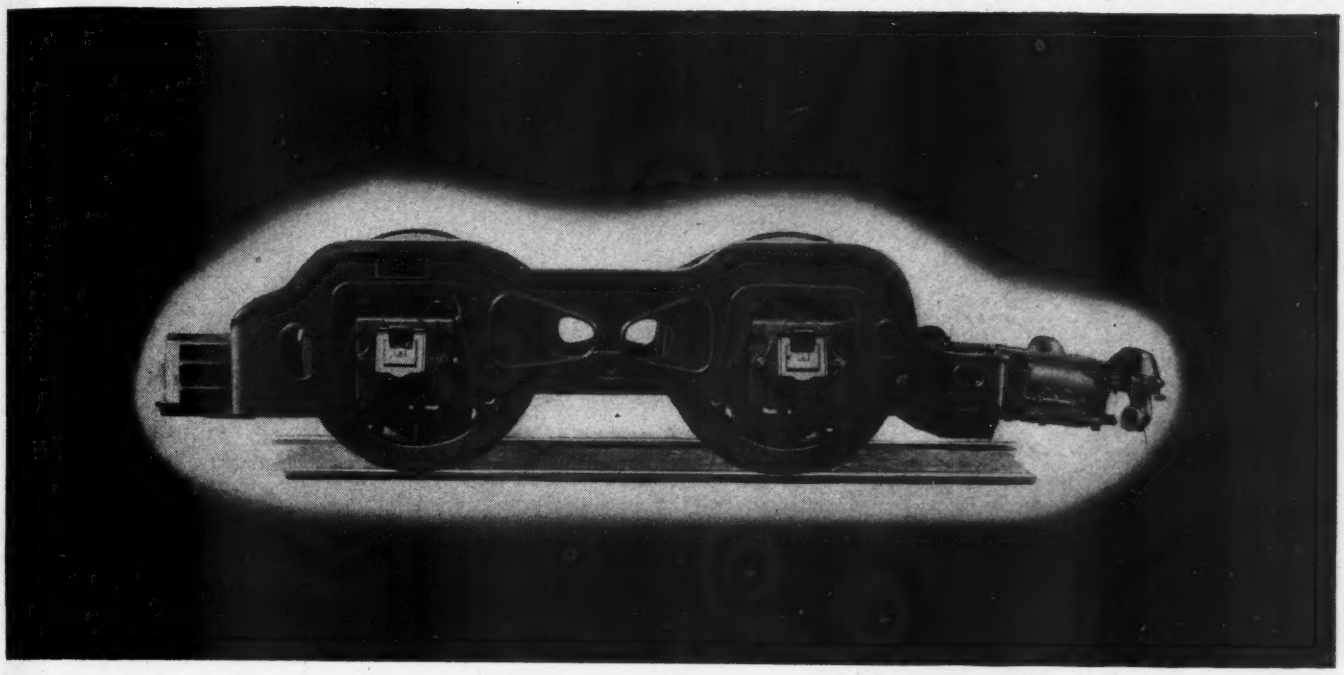
As of July 1, only 3,639 or 18 per cent of the 20,000 cars authorized for production during the first six months of the



*News Department continued on next left-hand page*

# INCREASED LOCOMOTIVE CAPACITY

## For Wartime Loads



In times like these, when locomotives are overworked with record-breaking traffic, the benefits of the Locomotive Booster* become obvious.

The supplementary power provided by the Booster permits the starting of heavier loads and faster acceleration to road speeds. This added power also gets heavy trains in and out of sidings in half the time, and helps you out of any tight spot — it speeds up traffic all along the line.

*Trade Mark Reg. U. S. Pat. Off.

**FRANKLIN RAILWAY SUPPLY COMPANY, INC.**

NEW YORK CHICAGO

*In Canada:* FRANKLIN RAILWAY SUPPLY COMPANY, LIMITED, MONTREAL

year by the War Production Board had been built. Of the remaining 16,361, 13,002 were on order with contract car builders, including 3,331 gondola, 7,319 hopper, 1,671 ore, 535 flat and 146 tank cars, and 3,359 with railroad shops, including 1,900 gondola, 1,058 hopper and 401 flat cars. Undelivered at July 1 but authorized for production under the 20,000-car program were 700 gondola, 131 hopper and 300 flat cars for the Atlantic Coast Line; 2,380 hopper cars for Chesapeake & Ohio; 460 gondola, and 400 flat cars due the Chicago, Milwaukee, St. Paul & Pacific from the railroad's own shops; 1,000 gondola cars for the New York Central from Despatch Shops; 895 gondola and 1,333 hopper cars for the Southern; and 1,000 hopper cars for the Union Pacific. Evidencing this serious lag in freight car production due to the continued shortage of materials, in all 24 railroads and eight private car lines on July 1 were awaiting deliveries of these 16,361 cars originally scheduled for production during the first six months of 1943 in accordance with government authorizations.

The 19,716 cars without WPB authority to build at July 1 comprised 13,716 on car builders' books, including 1,700 auto, 4,324 box, 1,120 gondola, 6,207 hopper, 340 flat and 25 caboose cars and 6,000 ordered from company shops, including 100 auto, 750 box, 1,100 gondola, 2,500 hopper, 200 stock, 1,200 refrigerator and 150 caboose cars. Among the larger orders "frozen" at July 1 were 1,100 box and 250 hopper cars for the Atlantic Coast Line; 1,000 box and 500 hopper cars for the Baltimore & Ohio; 1,160 box, 110 hopper and 115 flat cars for the Atlantic Coast Line; 1,000 box and 1,000 gondola cars for the Chicago & Northwestern; 1,150 hopper cars for the Missouri Pacific; 1,000 hopper and 25 flat cars for the Norfolk & Western; 2,000 hopper and 1,000 gondola cars for the Reading; and 950 box and 1,052 hopper cars for the Southern.

The accompanying table also shows, as of July 1, 1943, a detailed list of locomotives scheduled to be built during the twelve months July, 1943-June, 1944, for delivery to domestic railroads in accordance with War Production Board authorizations.

The individual orders shown for these locomotives and WPB authorizations to build were previously reported separately from time to time in the Equipment & Supplies section of the *Railway Age* and most of the orders were grouped in a table showing the month ordered in the *Railway Age* of March 13, page 533.

Included in the list are 536 locomotives, designed chiefly for freight service, of which 80 were delivered prior to July 1. Of the remaining 456, railroad shops

## Railroad Orders for New Freight Cars—First Six Months, 1943

| Name of Railroad | No. | Type | Capacity | Month Ordered | Builder |
|---|---|---|---|---|---|
| Alton | 500 | Hopper | 50-ton | May | American Car & Foundry |
| Atchison, Topeka & Santa Fe | 200 | Hopper | 50-ton | January | Pullman-Standard |
| | 200 | Gondola | 70-ton | January | Pullman-Standard |
| | 300 | Ore | 70-ton | January | American Car & Foundry |
| Atlantic Coast Line | 300 | Hopper | ..... | January | Bethlehem Steel Co. |
| | 300 | Gondola | ..... | January | Bethlehem Steel Co. |
| | 300 | Flat | 50-ton | January | Pullman-Standard |
| Central of Georgia | 50 | Hopper | ..... | January | Pullman-Standard |
| | 100 | Hopper | 50-ton | March | American Car & Foundry |
| | 65 | Flat | 50-ton | March | American Car & Foundry |
| | 770 | Box | 50-ton | March | American Car & Foundry |
| Chesapeake & Ohio | 620 | Hopper | 50-ton | January | American Car & Foundry |
| | 500 | Hopper | 50-ton | January | General American |
| | 1250 | Hopper | 50-ton | January | Pullman-Standard |
| | 630 | Hopper | 50-ton | February | General American |
| Chicago, Rock Island & Pacific | 400 | Gondola | 70-ton | January | Pressed Steel Car |
| Denver & Rio Grande Western | 200 | Flat | 50-ton | April | Mount Vernon Car |
| Elgin, Joliet & Eastern | 300 | Hopper | 70-ton | January | Ralston Steel Car |
| | 440 | Gondola | 50-ton | January | Ralston Steel Car |
| Louisville & Nashville | 650 | Hopper | 50-ton | January | Pullman-Standard |
| | 350 | Hopper | 50-ton | February | Pullman-Standard |
| Missouri Pacific | 1600 | Hopper | 70-ton | January | American Car & Foundry |
| (I. G. N.) | 100 | Flat | 50-ton | January | American Car & Foundry |
| New York Central | 1 | Flat | 187½-ton | March | Despatch Shops |
| | 700 | Gondola | 70-ton | January | Despatch Shops |
| | 200 | Flat | 70-ton | January | Despatch Shops |
| (Indiana Harbor Belt) | 300 | Gondola | 70-ton | January | Despatch Shops |
| | 100 | Flat | 70-ton | January | Despatch Shops |
| Norfolk & Western | 500 | Hopper | 70-ton | April | Bethlehem Steel |
| | 500 | Hopper | 70-ton | April | Virginia Bridge |
| Northern Pacific | 300 | Flat | 50-ton | January | American Car & Foundry |
| | 250 | Hopper | 70-ton | January | American Car & Foundry |
| Pennsylvania | 1000 | Gondola | 70-ton | January | Company Shops |
| Pittsburg & Shawmut | 50 | Hopper | 50-ton | June | Pullman-Standard |
| Reading | 1000 | Hopper | ..... | March | Company Shops |
| Western Maryland | 25 | Flat | 50-ton | January | American Car & Foundry |

## Railroad Steam Locomotive Building Program at July 1, 1943

**(Covers Locomotives Authorized for Production by the War Production Board)**

| Name of Railroad | Type | Number Ordered | Approximate Deliveries to July 1 | Reported Delivery Schedule | Builder |
|---|---|---|---|---|---|
| Atchison, Topeka & Santa Fe | 4–8–4 | 30 | .. | Aug.–Dec. '43 | Baldwin Locomotive Works |
| | 2–10–4 | 20 | .. | Feb.–Mar. '44 | Baldwin Locomotive Works |
| Baltimore & Ohio | 2–8–8–4 | 20 | .. | Dec. '43–Feb. '44 | Baldwin Locomotive Works |
| Bessemer & Lake Erie | 2–10–4 | 10 | .. | Sept.–Oct. '43 | Baldwin Locomotive Works |
| Central of Georgia | 4–8–4 | 8 | .. | July–Aug. '43 | Lima Locomotive Works |
| Chesapeake & Ohio | 2–8–4 | 40 | .. | Oct. '43–Jan. '44 | American Locomotive Company |
| | 2–6–6–6 | 10 | .. | Apr.–June '44 | Lima Locomotive Works |
| | 0–8–0 | 5 | .. | August '43 | Lima Locomotive Works |
| | 0–8–0 | 5 | .. | December '43 | Lima Locomotive Works |
| Chicago, Rock Island & Pacific | 4–8–4 | 10 | .. | Feb.–Mar. '44 | American Locomotive Company |
| Detroit, Toledo & Ironton | 2–8–2 | 4 | .. | March '44 | Lima Locomotive Works |
| Indianapolis Union | 0–8–0 | 3 | .. | January '44 | Baldwin Locomotive Works |
| Lehigh & Hudson River | 4–8–2 | 3 | .. | February '44 | Baldwin Locomotive Works |
| Lehigh Valley | 4–8–4 | 10 | .. | October '43 | American Locomotive Works |
| Missouri Pacific | 4–8–4 | 15 | 2 | July–Aug. '43 | Baldwin Locomotive Works |
| Nashville, Chattanooga & St. Louis | 4–8–4 | 10 | .. | September '43 | American Locomotive Company |
| New York Central | 4–8–2 | 25 | .. | Aug.–Nov. '43 | Lima Locomotive Works |
| New York, Chicago & St. Louis | 2–8–4 | 15 | .. | Dec. '43–Jan. '44 | Lima Locomotive Works |
| Norfolk & Western | 2–6–6–4 | 15 | 10 | July–Sept. '43 | Company Shops |
| | 4–8–4 | 6 | .. | Oct.–Dec. '43 | Company Shops |
| | 2–6–6–4 | 10 | .. | Feb.–June '44 | Company Shops |
| Pennsylvania | 2–10–4 | 110 | 60 | July–Nov. '43 | Company Shops |
| | 2–10–4 | 40 | .. | Feb.–June '44 | Company Shops |
| Pere Marquette | 2–8–4 | 12 | .. | Feb.–Mar. '44 | Lima Locomotive Works |
| Pittsburgh & Lake Erie | 0–8–0 | 25 | .. | Feb.–Apr. '44 | American Locomotive Works |
| St. Louis–San Francisco | 4–8–4 | 10 | .. | July–Aug. '43 | Baldwin Locomotive Works |
| Southern Pacific | 4–8–8–2 | 20 | .. | Sept.–Dec. '43 | Baldwin Locomotive Works |
| | 4–8–4 | 10 | 4 | July–Aug. '43 | Lima Locomotive Works |
| Union | 0–6–0 | 10 | .. | January '44 | American Locomotive Company |
| Union Pacific | 4–6–6–4 | 25 | 4 | July–Sept. '43 | American Locomotive Company |



*News Department continued on next left-hand page*

# Here's help in maintaining *Fuel Burning Efficiency*

**More than 30 years ago the fundamental value of the Security Sectional Arch in increasing coal-burning efficiency was established by railroad men themselves.**

**Make sure that full use is being made of this proved help in obtaining the maximum steam production from each pound of wartime fuel.**

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will build 111 and the three contract builders 345. Building schedules on these locomotives reportedly calls for delivery of about 32 in July, 1943, 52 in August, 51 in September, 49 in October, 43 in November, 49 in December, 42 in January, 1944, 46 in February, 47 in March, 19 in April, 14 in May, and 12 in June.

Certain of the orders listed were placed in part in 1942 and increased in size early this year when the WPB approved the building of a larger number of locomotives for these particular carriers than were already on order. Thus the Atchison, Topeka & Santa Fe which had 20 locomotives of 4-8-4 wheel arrangement on order since November, 1942, received WPB authorization this year covering the building of 30 engines of this type, the order for the additional ten being placed in February. (The railroad also has twenty 2-10-4 type locomotives scheduled for delivery in 1944.) The Bessemer & Lake Erie, which had five 2-10-4 type locomotives on order but "frozen" since April, 1942, received authorization covering the building of 10 engines of this type, the order for the additional five being placed in February.

Among the larger motive power purchases listed as scheduled for building in contract shops are the Chesapeake & Ohio order for 40 engines of the Berkshire class, with 2-8-4 wheel arrangement, placed with the American Locomotive Company in February at a cost of $7,600,000 (also on order for the C. & O. are ten 2-6-6-6 type and ten 0-8-0 type locomotives scheduled for building by the Lima Locomotive Works); the Baltimore & Ohio order for 20 2-8-8-4 type engines placed in February with the Baldwin Locomotive Works; the New York Central order for 25 4-8-2 type locomotives placed in January with the Lima Locomotive Works; the Pittsburgh & Lake Erie order for 25 0-8-0 type engines placed with the American Locomotive Company; the Southern Pacific orders for 20 articulated-consolidation (4-8-8-2) type locomotives placed in February with the Baldwin Locomotive Works and for ten 4-8-4 type locomotives (of which four were delivered in June) placed with the Lima Locomotive Works; and the Union Pacific order for 25 4-6-6-4 type locomotives (of which four were delivered in June) placed with the American Locomotive Company. The Pennsylvania's program calls for the building, in the railroad's own shops, of 90 2-10-4 type locomotives (in addition to 60 recently delivered) at the rate of about 10 per month and the Norfolk & Western has scheduled in its shops 15 2-6-6-4 type locomotives (in addition to 10 recently completed) and six 4-8-4 type engines.

In addition to the steam locomotives listed in the accompanying table, there were on July 1 approximately 450 Diesel-electric locomotives authorized and scheduled for production during the subsequent nine months July, 1943-March, 1944. Of these about 85 were freight engines of 5400-hp. each, ten of 2000-hp. and the balance road and switching engines of 1000 or 660 hp. The Diesel engines reportedly will be turned out at the rate of between 45 and 55 per month.

### 5,000 Box Cars to be Built

The War Production Board has authorized the construction of 5,000 box cars in the latter part of this year and the early months of 1944 and may allot sufficient materials for the construction of 6,000 more, according to R. E. Clark, manager of the Closed Car section of the Association of American Railroads, in an address before the quarterly meeting of the Mid-West Shippers Advisory Board at Chicago on July 8. Details are set forth in the news section elsewhere in these pages.

### SIGNALING

THE NEW YORK, NEW HAVEN & HARTFORD has placed orders with the Union Switch & Signal Co. for three Model 31 electro-pneumatic car retarders involving a total of 412 rail feet of retardation. These retarders are being installed in the Westbound Cedar Hill classification yard, New Haven, Conn.

THE WESTERN PACIFIC has placed orders with the Union Switch & Signal Co. covering the signal material required for the installation of a centralized traffic control system between Oroville, Cal., and Portola. This territory involves 117.91 miles of single track line in the Feather River canyon. The control machine for this C. T. C. project will be located at Keddie to control the territory west to Oroville and east to Portola, with the installation involving two sections of code line between Keddie and Oroville, one of which will be handled by code carrier control. High and dwarf signals of the H-2 search-light type will be installed, along with Style M-22-A switch movements. Coded track circuits will be installed throughout the territory, with these coded circuits arranged on a reversible basis to provide for the directional control of the system. The field installation work will be carried out by the railroad company's regular construction forces.

## Abandonments

CHICAGO, ROCK ISLAND & PACIFIC.—The Interstate Commerce Commission has reopened for further hearing the proceedings in this road's application for authority to abandon its line from Stockton, Iowa, to Tipton, 21.66 miles, which was approved by Division 4 with Commissioner Porter dissenting (reported in *Railway Age* February 20, page 418).

NASHVILLE, CHATTANOOGA & ST. LOUIS.—The Interstate Commerce Commission has denied the petitions of the Georgia Public Service Commission and others for further hearing on this road's application for authority to abandon its line from Kingston, Ga., to Rome, 17.7 miles, and has extended to August 22 the effective date of the certificate authorizing such abandonment, on the condition that the road shall sell the line involved, as a unit, to any purchaser for continued operation who before that date offers to pay the net salvage value thereof.

## Financial

ALTON.—*Reorganization.* — The Interstate Commerce Commission has assigned for hearing on September 8 at Chicago its Finance Docket No. 14030 proceedings for consideration of the supplemental plan for reorganization of this road, the details of which were reviewed in this column in the issue of July 3, page 37.

By order of the commission's Division 4 a report prepared by the commission's Bureau of Accounts setting forth the results of its investigation of the net income of this company and certain subsidiaries during the years 1937 to 1942, inclusive, has been made part of the record in these proceedings.

BALTIMORE & OHIO.—*Trackage Rights.*—Modification of the agreement under which this road operates under trackage rights over the line of the Pittsburgh & Lake Erie between McKeesport, Pa., and New Castle Junction, 58.1 miles, has been approved by Division 4 of the Interstate Commerce Commission. Pointing out that B. & O. operations over the line involved have increased from 18,078,438 car miles in the year ended October 1, 1936, to 38,104,246 car miles in the year ended October 1, 1942, and that under this modified arrangement the road realizes a saving of one dollar in expense for each dollar paid for use of the line, the division has found an upward revision in the annual rental charges justified.

CHICAGO, ROCK ISLAND & PACIFIC.—*Bondholders Agreement Reported Near.*—Major bondholders' groups have notified the trustees and the District court (Chicago) that progress is being made in the efforts of securities committees to settle their differences and speed completion of reorganization. Such an agreement would pave the way for a distribution of cash, when reorganization is finally approved, which may amount to 35 million dollars or more according to reports. The reorganization plan has been approved by the court, with a few minor exceptions, and has been remanded to the Interstate Commerce Commission for consideration of the court's suggestions, as reported in the *Railway Age* of July 3.

ERIE.—*Merger of Subsidiary.*—This company has applied to the Interstate Commerce Commission for authority to acquire by merger the property of the Nyack & Southern, which it controls through ownership of capital stock.

GREAT NORTHERN.—*Trackage Rights.* — Division 4 of the Interstate Commerce Commission has authorized this road to acquire trackage rights over the so-called Point Defiance line of the Northern Pacific between Tacoma, Wash., and Tenino Junction, 43.5 miles, in addition to its rights to operate over the same company's alternate route between these points known as the Prairie line. The approved arrangement provides that so long as the Prairie line is not used for G. N. passenger trains the annual rental charges will


*News Department continued on next left-hand page*

# The *Life of an* IRON HORSE...

(steam locomotive) is almost infinite, when it is considered that competitive motive power has been scrapped at the young age of seven years and at a cost many times that of steam power.

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exceed the amount formerly paid for use of that line alone by $86,000, but an additional payment of $50,000 per year will become effective if both lines are used. The Point Defiance line affords more favorable operating conditions and is maintained as a double-track main line, while the Prairie line hereafter will be maintained only on branch line standards.

GULF, MOBILE & OHIO.—*Leased Line Bonds.*—The New Orleans Great Northern, lessee, has applied to the Interstate Commerce Commission for authority to issue and deliver to this company as reimbursement for expenses incurred by it $132,000 of first mortgage 5 per cent series B bonds.

ILLINOIS CENTRAL.—*Release of Collateral.*—This road has applied to the Interstate Commerce Commission for approval of its application to the Reconstruction Finance Corporation for authority to withdraw from collateral deposited with that agency certain securities of its subsidiaries in the total principal amount of $81,828,884. As the amount of its indebtedness to the R. F. C. has been reduced from $37,137,000 to $15,000,000, the road points out that it will be amply secured by the collateral remaining, while release of the specified issues will improve the road's financial position.

KANSAS CITY SOUTHERN.—*Merger of Subsidiary.*—Division 4 of the Interstate Commerce Commission has authorized this road to acquire by merger the property of its wholly owned subsidiary, the Kansas City & Grandview, including its line from Leeds, Mo., to Grandview, 13.33 miles, and to assume liability for the principal and interest of the latter company's $3,000,000 first mortgage guaranteed gold bonds, series A, in order to effect simplification of capital structure and tax savings.

ST. LOUIS-SAN FRANCISCO.—*New Trustee Named.*—Frank A. Thompson, St. Louis (Mo.) attorney, has been appointed co-trustee of the St. Louis-San Francisco by Federal Judge George H. Moore, succeeding John G. Lonsdale, deceased.

WESTERN PACIFIC.—*Reorganization.* — The plan of reorganization for this road approved by the Interstate Commerce Commission and the courts will be submitted to certain classes of creditors of the old company for their acceptance or rejection by ballot, Secretary W. P. Bartel of the commission announced July 8. Holders of first mortgage 5 per cent bonds and the A. C. James Company, Reconstruction Finance Corporation and Railroad Credit Corporation, promissory notes, as of July 15, will be entitled to vote on the plan.

## Average Prices Stocks and Bonds

| | July 13 | Last week | Last year |
|---|---|---|---|
| Average price of 20 representative railway stocks.. | 39.45 | 37.90 | 26.36 |
| Average price of 20 representative railway bonds.. | 80.36 | 79.83 | 64.21 |

## Dividends Declared

Cayuga & Susquehanna.—75¢ payable July 2 to holders of record June 22.

Lake Superior & Ishpeming.—50¢, quarterly, payable June 30 to holders of record June 25.

# Railway Officers

## EXECUTIVE

**C. F. Wiegele,** assistant general manager of the Indiana Harbor Belt and the Chicago River & Indiana, has been appointed assistant to vice-president of the New York Central, line West, with headquarters as before at Chicago.

**Albert H. Graham,** whose appointment as assistant to president of the Pittsburgh & West Virginia, with headquarters at Pittsburgh, Pa., was announced in the *Railway Age* of July 3, was born on October 24, 1908, at Pittsburgh. He was graduated from Williams College, receiving a B.A. degree in 1932. In 1934 he received an M.B.A. degree from the Harvard University Graduate School of Business Administration Mr. Graham entered railroad service on December 8, 1938, as a clerk in the transportation department of the Pittsburgh & West Virginia, and September 1, 1940, he was appointed statistician in the same department. On June 15, 1941, Mr. Graham became special representative in the traffic department, the position he held at the time of his recent promotion as assistant to president.

## FINANCIAL, LEGAL AND ACCOUNTING

**Charles B. Anderson,** freight claim agent and car accountant of the Chicago & Eastern Illinois, with headquarters at Chicago, died in that city on July 13. Mr. Anderson was born at Momence, Ill., on August 7, 1874, and entered railway service in January, 1891, as a messenger of the C. & E. I. at Chicago. He subsequently served as assistant chief clerk and assistant cashier, cashier, and local freight agent, with the same headquarters, and in 1917 he was promoted to superintendent of transportation at Chicago. In 1927 Mr. Anderson was advanced to special representative of the vice-president in charge of operations, and six years later he was appointed to the position he held at the time of his death.

## OPERATING

**J. M. Miller** has been appointed assistant superintendent of the Elkins division of the Western Maryland, with headquarters at Cumberland, Md.

**W. L. White** has been appointed general manager of the Central California Traction Company, with headquarters at Stockton, Cal., succeeding George H. Harris, who has retired.

**L. T. Wright,** assistant superintendent of transportation of the Denver & Rio Grande Western, with headquarters at Denver, Colo., has been appointed superintendent of the Grand Junction division with headquarters at Grand Junction, Colo., succeeding **K. L. Moriarty** who has been transferred to the Salt Lake division, with headquarters at Salt Lake City, Utah. Mr. Moriarty relieves **J. R. Loftis,** who has been granted a leave of absence. **L. H. Hale** has been appointed assistant superintendent of transportation at Denver, succeeding Mr. Wright.

**Herbert G. Moore,** special duty yardmaster of the Pennsylvania, has been appointed assistant trainsmaster of the Delmarva division, with headquarters at Delmar, Del.

**J. P. Cameron,** trainmaster of the Dakota division of the Great Northern, has been promoted to superintendent, with headquarters as before at Grand Forks, N. D., succeeding **N. L. Greer,** who has been granted leave of absence on account of illness.

**R. W. Friday,** trainmaster of the Rock Island division of the Chicago, Rock Island & Pacific at Rock Island, Ill., has been promoted to assistant superintendent of the Missouri-Kansas division, with headquarters at Trenton, Mo., succeeding **Charles T. Rowley,** who promotion to superintendent of the Western division, with headquarters at Fairbury, Neb., was reported in the *Railway Age* of June 12.

**John J. Brinkworth,** assistant general manager of the New York Central at Syracuse, N. Y., has been appointed assistant to general manager with headquarters at Cincinnati, Ohio, and **C. A. Raymonda,** division superintendent at Buffalo, N. Y., has been appointed assistant general manager, line east, with headquarters at Syracuse succeeding Mr. Brinkworth. **Miles R. Dwyer,** assistant division superintendent, has been advanced to division superintendent, with headquarters as before at Buffalo, succeeding Mr. Raymonda, while **R. H. McGraw,** trainmaster at Syracuse, has been appointed assistant division superintendent at Buffalo succeeding Mr. Dwyer. **W. J. Barnes,** assistant trainmaster at Buffalo has been appointed trainmaster at Syracuse, succeeding Mr. McGraw, and **H. J. Slavin** has been appointed assistant trainmaster at Buffalo, succeeding Mr. Barnes.

**Walter R. Minton** whose promotion to superintendent of the Klamath division of the Great Northern, with headquarters at Klamath Falls, Ore., was reported in the *Railway Age* of June 26, was born at Spring Valley, Minn., on April 24, 1892, and entered railway service on August 12, 1912. One year later he was appointed night yardmaster at Sandstone, Minn., and on June 1, 1916, he was advanced to day yardmaster, with headquarters at Cass Lake, Minn. He served with the U. S. Army during World War I and after the Armistice he returned to the Great Northern at Cass Lake. In June, 1929, Mr. Minton was promoted to trainmaster at Great Falls, Mont., and was advanced to assistant superintendent, with headquarters at Glasgow, Mont., in 1934. He later served as trainmaster at St. Cloud, Minn., and Minneapolis, and was transferred to Willmar, Minn., in January,

1942, remaining in that location until his new appointment, effective June 15.

**T. L. Green,** division superintendent of the New York Central, has been appointed assistant general manager of the Indiana Harbor Belt and the Chicago River & Indiana, with headquarters as before at Chicago, succeeding **C. F. Wiegele,** whose appointment as assistant to vice-president of the New York Central, line West, is reported elsewhere in these columns. **F. H. Garner,** assistant division superintendent of the New York Central, has been appointed division superintendent, with headquarters as before at Chicago, succeeding Mr. Green, while **J. W. Crowley,** trainmaster of the New York Central at Elkhart, Ind., has been appointed assistant division superintendent at Chicago succeeding Mr. Garner, and **Joseph L. Sorenson** has been appointed trainmaster at Elkhart, succeeding Mr. Crowley.

**Morton S. Smith,** whose promotion to superintendent of the Logansport division of the Pennsylvania, with headquarters at Logansport, Ind., was reported in the *Railway Age* of July 3, was born at Hughesville, Pa., on July 1, 1906, and attended Pennsylvania State College. He entered railway service on June 24, 1929,

**Morton S. Smith**

as assistant on the engineer corps of the Pennsylvania at Lancaster, Pa., and in the same year he was appointed assistant supervisor of track, serving in that capacity on the Baltimore, Philadelphia, Maryland and Middle divisions. In 1933 Mr. Smith was promoted to supervisor of track on the Monongahela division and until 1939 he served in the same capacity on various divisions. In 1940 he was advanced to division engineer of the Monongahela division and in February, 1943, he was transferred to the Long Island Railroad (a subsidiary of the Pennsylvania), with headquarters at Jamaica, N. Y., remaining in that location until his new appointment, effective July 1.

**Arthur C. Tosh** has been appointed general manager of the Reading, with headquarters at Reading, Pa., succeeding **Philemon S. Lewis,** whose death on July 7 was noted in the *Railway Age* of July 10. The position of general superintendent at Reading formerly held by Mr. Tosh has been abolished. Mr. Tosh, who was born on July 10, 1891, at Oneida, Pa., entered railroad service on September 27, 1909, as a night clerk and operator of the Reading at Catasauqua, Pa., becoming day operator there the following June. On September 27, 1911, Mr. Tosh became telegraph

Phillips Studio

**Arthur C. Tosh**

operator at Reading and a year later he was appointed extra agent at East Penn Junction, Pa. From November, 1912, to March, 1916, he was agent pro tem at Catasauqua, and from March to June 1916, he was agent and dispatcher there. He then served as inspector in the office of the general manager, and on November 9, 1918, he was appointed inspector of transportation. On July 20, 1926, he became superintendent of highway transportation. On April 20, 1928, Mr. Tosh was appointed superintendent of the Reading Transportation Company and on March 20, 1930, became also superintendent of passenger transportation of the Reading. On March 16, 1934, he was appointed superintendent of the Shamokin division, becoming superintendent of transportation of the Reading and the Central of New Jersey at Philadelphia, Pa., on April 26, 1937. Mr. Tosh was appointed general superintendent of the Reading on July 15, 1941, the position he was maintaining at the time of his recent appointment as general manager at Reading.

**George E. Rollins,** superintendent of the Jacksonville district of the Atlantic Coast Line at Sanford, Fla., has been appointed superintendent transportation, with headquarters at Savannah, Ga., succeeding **J. A. Wall,** who has retired after 42 years of service, because of ill health. **W. S. Baker,** acting superintendent terminals at Jacksonville, Fla., has been appointed superintendent of the Tampa district, with headquarters at Tampa, Fla., succeeding **C. C. Blanc,** who has been transferred to the Jacksonville district at Sanford, succeeding Mr. Rollins. **J. J. Marshall** has been appointed acting superintendent terminals at Jacksonville, succeeding Mr. Baker, and **A. M. Whigham** and **L. W. Shuman** have been appointed acting trainmasters of the Ocala district, with headquarters at Ocala, Fla., and of the Jacksonville district, with headquarters at Sanford, respectively. Mr. Wall, who was born on April 7, 1874, at Savannah, entered railroad service in 1888 as telegraph operator of the East Tennessee, Virginia & Georgia (now Southern), and remained in that position until 1889, when he became telegraph operator of the Plant System (now Atlantic Coast Line). In 1897 he went with the Central of Georgia as a telegraph operator at Savannah, and in 1898 he returned to the service of the Plant System as train dispatcher at High Springs, Fla. He served as train dispatcher of the Southern at Selma, Ala., from 1900 to 1901, returning to the Plant System in the latter year to serve as train dispatcher at Waycross, Ga.

He became chief dispatcher of the Atlantic Coast Line at Waycross in 1907, and in 1910 was appointed trainmaster with the same headquarters. Mr. Wall became superintendent at Waycross in 1923, and in 1927 he was appointed superintendent of transportation at Savannah, the position from which he recently retired.

## TRAFFIC

**F. G. Roberts,** assistant general freight agent of the Seaboard Air Lines, has been appointed assistant freight traffic manager, with headquarters as before at Miami, Fla.

**J. A. Wilson** has been appointed assistant general freight agent of the Piedmont & Northern-Durham & Southern, with headquarters at Charlotte, N. C.

**W. J. Fitzgerald,** commercial agent of the Lehigh & Hudson River at Warwick, N. Y., has been promoted to the newly created position of district freight agent with headquarters at Room 515, 157 Church street, New Haven, Conn.

**Ernest W. Croonquist,** district freight agent of the New York, Ontario & Western at Scranton, Pa., has been appointed general agent, with headquarters at New York, and **Ira E. Terry,** commercial agent, has been appointed district freight agent, with headquarters as before at Utica, N. Y.

**William J. Fillingim,** assistant general traffic agent of the New York, New Haven & Hartford, has been promoted to general traffic agent, with headquarters as before at Boston, Mass., and **William H. Mahoney** has been appointed assistant general traffic agent, succeeding Mr. Fillingim.

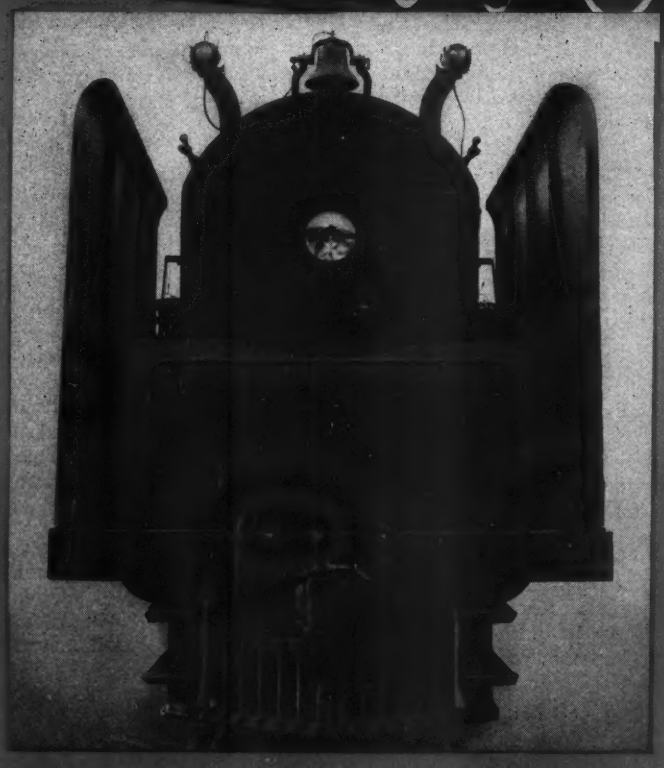
**W. M. Hugle** has been appointed general agent of the Quanah, Acme & Pacific, with headquarters at Chicago, succeeding **Roy L. Thompson,** who has resigned. **L. B. Williams** has been appointed general agent, with headquarters at Pittsburgh, Pa., replacing **Roy C. Klostermeyer,** who has resigned.

**F. C. Street,** general agent of the Louisville & Nashville at Pittsburgh, Pa., has been appointed general Eastern freight agent at New York, succeeding **R. A. Stanley,** whose appointment as division freight agent at New Orleans, La., was announced in the *Railway Age* of June 26. **C. R. McFarland,** traveling freight agent,



*News Department continued on second left-hand page*

# AGAIN the WAR



## Locomotive Characteristics

| | |
|---|---|
| Weight on Drivers | 270,000 Lb. |
| Weight of Engine | 470,000 Lb. |
| Cylinders | 24½ x 32 Ins. |
| Diameter of Drivers | 75 Ins. |
| Boiler Pressure | 285 Lb. |
| Tractive Power | 62,040 Lb. |
| Tender Capacity—Water | 20,000 Gals. |
| Tender Capacity—Fuel | 25 Tons |

★ ★ ★ ★ ★ ★ ★

**FOR VICTORY BUY U. S. WAR BONDS AND STAMPS**

# TIME PACE ★ ★ ★

## goes up on the

# DELAWARE & HUDSON

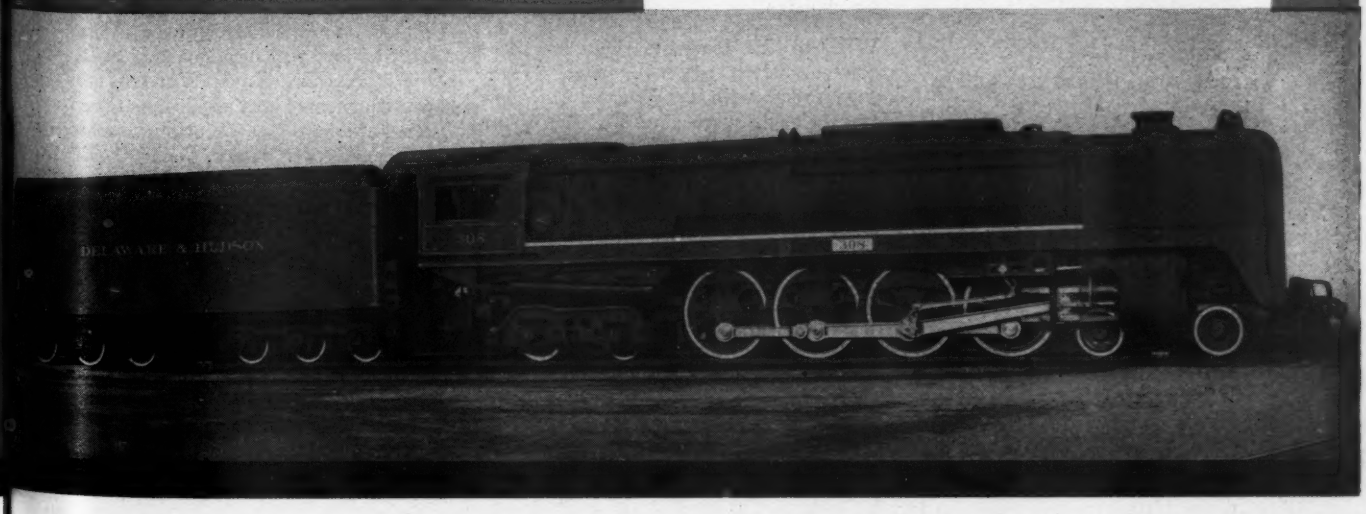
Fifteen 4-8-4's have recently been delivered by Alco to the Delaware & Hudson. This makes a fleet of 50 — fifteen 4-8-4's and thirty-five 4-6-6-4's — high-speed, high-powered, heavy tonnage locomotives which Alco has delivered to this road since July 1940.

Alco

**AMERICAN LOCOMOTIVE**

MANUFACTURERS OF MOBILE POWER

STEAM, DIESEL AND ELECTRIC LOCOMOTIVES, MARINE DIESELS, TANKS, GUN CARRIAGES & OTHER ORDNANCE



has been appointed general agent, with headquarters as before at Pittsburgh, succeeding Mr. Street.

**Frank Pattie,** general agent of the St. Louis Southwestern (Cotton Belt), at New Orleans, La., has been advanced to executive general agent, with headquarters at Washington, D. C., succeeding **Edward Carson** who has been assigned to other duties. **F. L. Barnes,** commercial agent at Atlanta, Ga., has been promoted to general agent at New Orleans, replacing Mr. Pattie.

**T. P. Hinchcliff,** general passenger agent of the Chicago, Burlington & Quincy at Omaha, Neb., has been promoted to assistant passenger traffic manager, with headquarters at Chicago, a newly-created position. **Julius J. Alms,** assistant general passenger agent at Chicago, has been advanced to general passenger agent, with headquarters at Omaha. Succeeding Mr. Hinchcliff.

**C. C. Kelsey,** district freight agent of the Pennsylvania at Trenton, N. J., has been promoted to coal freight agent, with headquarters at Boston, Mass. **Elmer R. Norris,** chief clerk to the district freight agent at Wheeling, V. Va., has been advanced to district freight agent, with headquarters at Nashville, Tenn., succeeding **James M. C. Collins,** who has been transferred to Trenton, replacing Mr. Kelsey.

**Benjamin Mendez,** whose promotion to traffic manager of the National Railways of Mexico, with headquarters at Mexico City, Mexico, was reported in the *Railway Age* of June 26, was born at Jerecuaro, Gto., on November 10, 1886, and entered railway service on July 1, 1901, as a telegraph operator of the Mexican National Railway (now the National Railways of Mexico), subsequently serving as station agent at various points on the road until 1905, when he was promoted to telegraph manager, with headquarters at Mexico City. On July 17, 1909, he was appointed train dispatcher, and in September, 1918, he was promoted to assistant chief clerk of the general manager's office in Mexico City. In March, 1919, Mr. Mendez became traveling train dispatcher and six years later he was elected to the board of directors. In 1929 he was promoted to chief of the instruction department and president of the Tariff Commission, with the same headquarters. On October 1, 1942, he was appointed material agent, with headquarters at New York, holding that position until his new promotion, effective May 15.

**Benjamin Mendez**

**Curtis Ashmore McRee,** whose appointment as superintendent of the Seaboard Air Line, with headquarters at Raleigh, N. C., was announced in the *Railway Age* of July 3, was born on January 22, 1898, at Watkinsville, Ga., and was graduated from the Georgia Institute of Technology, receiving a B.S. degree in civil engineering in 1922. Mr. McRee entered railroad service on January 8, 1923, as an engineering inspector in the office of the chief engineer of the Seaboard Air Line at Norfolk, Va. From February 14, 1924, to December 15, 1933, he served in various capacities in the maintenance of way and structures department, including such positions as assistant to the division engineer, assistant division engineer, assistant roadmaster, division engineer, and roadmaster, becoming trainmaster on the latter date. Mr. McRee was appointed assistant superintendent of the North Carolina division on May 15, 1942, and remained in that position until his recent promotion to superintendent of the Virginia division.

**Curtis A. McRee**

**William Hollowway, III,** has been appointed district passenger agent of the Pennsylvania, with headquarters at New Haven, Conn., succeeding **M. B. Winn,** who has been appointed New England passenger agent at Boston, Mass. **B. F. Isenberg,** district freight agent at Canton, Ohio, has been appointed division freight agent, with headquarters at Wilmington, Del., succeeding **D. J. Moynihan,** who has been transferred to Baltimore, Md., succeeding **V. H. McLean,** who has been appointed assistant general freight agent at Pittsburgh, Pa. **W. P. Stuart,** coal freight agent, has been appointed New England freight agent, with headquarters as before at Boston, and **H. C. Millman** has been appointed industrial agent, with headquarters at Philadelphia, Pa.

## ENGINEERING & SIGNALING

**C. H. Holtzworth,** special engineer of the Baltimore & Ohio, has been appointed assistant to chief engineer, with headquarters as before at Baltimore, Md. Born in April, 1893, at Huntington, W. Va., Mr. Holtzworth entered railroad service on October 1, 1909, as a clerk in the freight office of the Baltimore & Ohio at Huntington. On July 15, 1916, he was transferred to the engineering department, later becoming chief clerk to district engineer, and in May, 1918, he was transferred to Baltimore. Entering the services of the United States Army two months later, Mr. Holtzworth was sent with a special training detachment to Richmond, Va. Following his release from military service on February 3, 1919, he returned to the engineering department of the Baltimore & Ohio as levelman at Pittsburgh, Pa. In March of the same year he became chief clerk and special accountant, and in 1931 he received additional special assignments under the chief engineer at Pittsburgh. On April 16, 1942, Mr. Holtzworth was sent to Baltimore as engineer in charge of special assignments, the position he was maintaining at the time of his recent promotion to assistant to chief engineer.

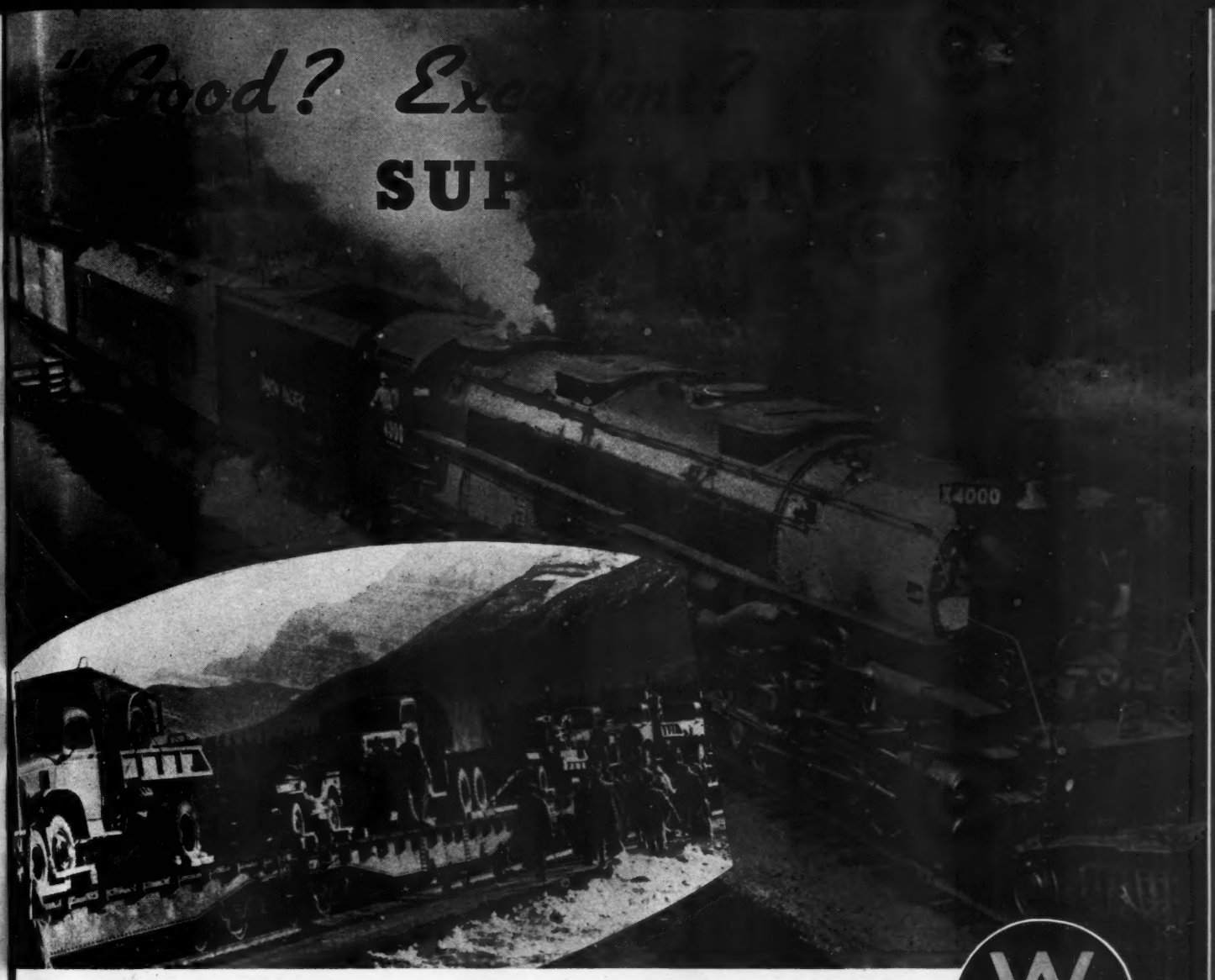
**C. H. Holtzworth**

**F. P. Fillipelli,** assistant division engineer of the Maryland division of the Pennsylvania at Baltimore, Md., has been promoted to division engineer of the Toledo division, with headquarters at Toledo, Ohio, succeeding **K. A. Werden,** who has been transferred to the Cincinnati division, with headquarters at Cincinnati, Ohio, replacing **A. W. Duke.** Mr Duke has been transferred to the Fort Wayne division, with headquarters at Fort Wayne, Ind., succeeding **A. H. Stimson,** who has been transferred to the Eastern division, with headquarters at Pittsburgh, Pa.

**John H. Kelly,** whose appointment as engineer, maintenance of way, of the New York Central, lines Buffalo and East, including the Boston & Albany, with headquarters at New York, was announced in the *Railway Age* of June 26, was born on August 9, 1891, at Fonda, N. Y., and received his engineering education at Rens-



*News Department continued on next left-hand page*




***So said an officer of the Army Transportation Corps when questioned regarding wartime performance of the railroads.****

The emergency found them ready with much improved equipment — more efficient, more reliable, more durable — that was being accumulated for better peacetime service. Wartime requirements of increasing magnitude have proved the wisdom of this foresight. Vital materials and supplies have been kept rolling at time-saving speeds, in huge volume, troops moving in vast numbers with dispatch, but — the "saturation point" of available facilities is imminent. Motive power and rolling stock are being taxed to their utmost. They must be augmented by new equipment, reinforced with adequate maintenance supplies.

Pending more liberal allotment of vital materiel', for which we are amply prepared, our field personnel will be glad to give any desired help toward maintaining the performance of Air Brakes, so that the accelerated movement of volume traffic may continue to be properly safeguarded, and that the best possible results be realized from equipment now in service.

**As reported in Railway Age — June 26, 1943.*

**WESTINGHOUSE AIR BRAKE CO.**

**WILMERDING, PENNSYLVANIA**

selaer Polytechnic Institute, Troy, N. Y. Mr. Kelly entered railway service in the engineering corps of the division engineer of the New York Central at Albany, N. Y., in August, 1912. In 1913, he was appointed engineering assistant on Subdivision 6, between Schenectady, N. Y., and Herkimer, where he remained until August 24, 1917. He then obtained a leave of absence to enter the United States Army, later sailing for France as a lieutenant of artillery on January 10, 1918. Following active participation in the various drives of the American Expeditionary Forces, and after receiving several decorations and citations, he returned to this country on September 3, 1919, resuming the position of engineering assistant on October 12 of the same year. In 1923, Mr. Kelly was promoted to assistant division engineer at Utica, N. Y., and served in that capacity until June 1, 1925, when he became supervisor of track on the Pennsylvania division, with headquarters at Clearfield Pa. On October 1, 1927, Mr. Kelly was promoted to division engineer of the Rochester division, with headquarters at Rochester, N. Y., later serving in the same capacity on the River division at Weehawken, N. J., the Eastern division at New York, and the Electric division, also at New York. In July, 1942, Mr. Kelly was promoted to engineer of track, lines Buffalo and East at New York, in which position he served until his promotion to engineer, maintenance of way.

## MECHANICAL

**W. M. Blackmon** has been appointed master mechanic of the Lancaster & Chester, with headquarters at Lancaster, S. C.

**Darrell D. Alton,** whose promotion to assistant superintendent of motive power and equipment of the Southern Pacific Lines in Texas and Louisiana, with headquarters at Houston, Tex., was reported in the *Railway Age* of July 10, was born

**Darrell D. Alton**

at Fremont, Mich., on July 24, 1894, and is a graduate of the University of Michigan. In 1923 he became a draftsman of the Texas & New Orleans (now part of the Southern Pacific Lines in Texas and Louisiana), with headquarters at Houston, and later served as special engineer. In 1941 Mr. Alton was advanced to assistant mechanical superintendent, with headquarters at El Paso, Tex., holding that position until his new appointment, effective July 1.

**Adrian I. Sellers,** whose promotion to chief assistant superintendent of motive power and equipment of the Southern Pacific Lines in Texas and Louisiana, with headquarters at Houston, Tex., was reported in the *Railway Age* of July 10, was born at Houston on October 24, 1899, and entered railway service in 1912 as a messenger of the telegraph department at Houston. He subsequently served in various capacities in the legal department and the general claims department and in 1914 he became an apprentice in the Houston shops. He served with the United States Army during World War I, and then returned to Houston in 1920 to complete his apprenticeship. Mr. Sellers served as machinist, roundhouse foreman and general shop foreman and in 1932 he was promoted to superintendent of shops at

**Adrian I. Sellers**

Houston, holding that position until his new appontment, effective July 1.

**K. L. Selby** has been appointed mechanical engineer of the Alton, with headquarters at Chicago, a newly-created position.

**F. Bittner** has been appointed superintendent of motive power and car equipment of the Quebec district, Central region, of the Canadian National, with headquarters at Quebec, Que., succeeding A. C. Melanson, transferred.

**Joseph S. Netherwood,** whose promotion to superintendent of motive power and equipment of the Southern Pacific Lines in Texas and Louisiana, with headquarters at Houston, Tex., was reported in the *Railway Age* of July 10, was born at Lohn, Tex., on November 18, 1899, and in 1911 he graduated in mechanical engineering from the Texas Agricultural and Mechanical college. He entered railway service in the same year as a draftsman of the Texas & New Orleans (now part of the Southern Pacific Lines in Texas and Louisiana). In 1913 Mr. Netherwood was advanced to chief draftsman at Houston and five years later he was promoted to mechanical engineer, with the same headquarters. In 1924 he was advanced to assistant superintendent of motive power and equipment, with headquarters at Algiers,

**Joseph S. Netherwood**

La., and two years later he was transferred to Houston.

## SPECIAL

**Rembert Pierce Travis,** whose appointment as personnel officer of the Southern system, with headquarters at Washington, D. C., was announced in the *Railway Age* of June 12, was born on January 24, 1890, at Fayetteville, Ga., and attended Young Harris College. Mr. Travis entered railroad service in 1911 as a stenographer of the Atlanta, Birmingham & Atlantic (now Atlanta, Birmingham & Coast) and subsequently became successively secretary to superintendent, transportation timekeeper, roadway accountant, and chief clerk. He became secretary to superintendent of the Southern at Atlanta, Ga., in November,

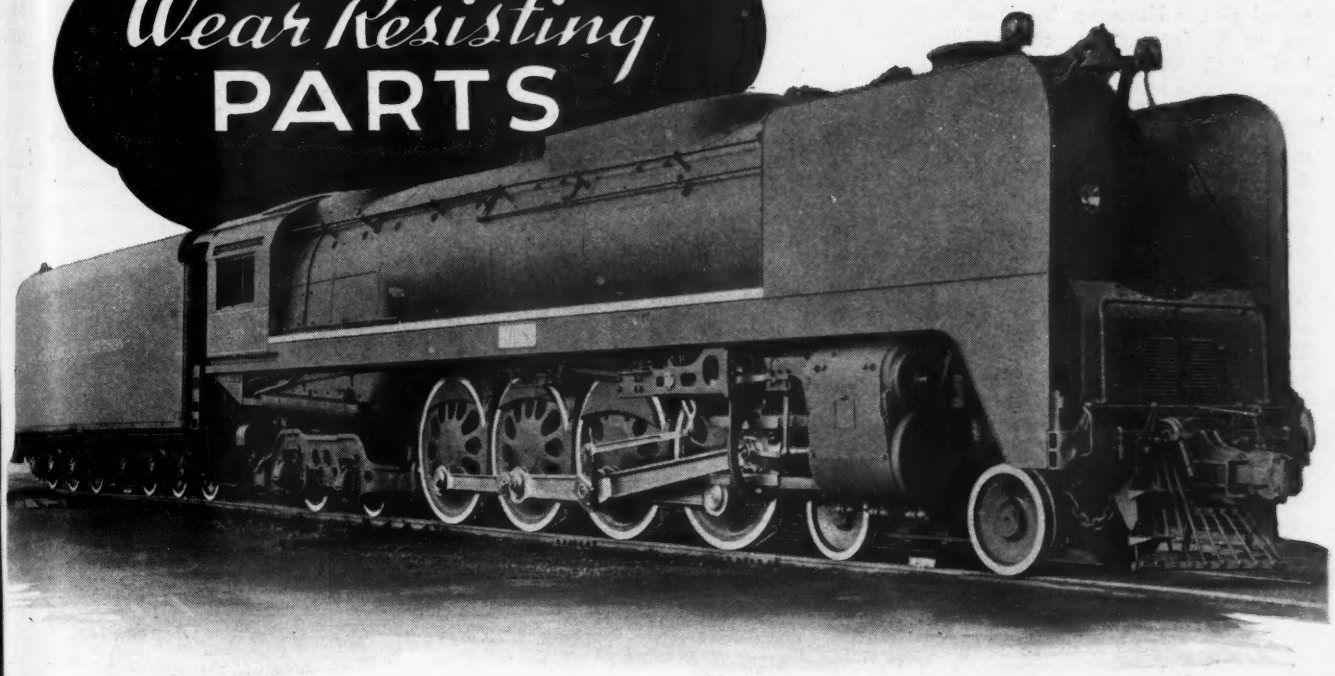
**Rembert P. Travis**

1922, and remained in that position until he was appointed bill and voucher clerk and accountant, superintendent's office at Atlanta, in May, 1923. In November of the same year he became chief timekeeper of the Atlanta division, and in May, 1929,



*News Department continued on next left-hand page*

# HSGI *Wear Resisting* PARTS



## ON THE NEW D & H LOCOMOTIVES

DESIGNED for fast freight operation and occasional heavy passenger service the 15 new 4-8-4 type locomotives built by Alco for the Delaware & Hudson Railroad represent the last word in modern power.

This new power is equipped with wear-resisting parts in the valves and cylinders made from HUNT-SPILLER *Air Furnace* GUN IRON.

The resistance of HSGI Parts to frictional wear and high superheat temperatures will insure dependable performance of this new power with minimum fuel consumption and low maintenance cost.

**HSGI**
**Reg. U.S. Trade Mark**
Cylinder Bushings
Cylinder Packing Rings
Pistons or Piston Bull Rings
Valve Bushings
Valve Packing Rings
Valve Bull Rings
Crosshead Shoes
Hub Liners
Shoes and Wedges
Floating Rod Bushings
***Finished Parts***
Dunbar Sectional Type Packing
Duplex Sectional Type Packing
for Cylinders and Valves
(Duplex Springs for Above
Sectional Packing)
Cylinder Snap Rings
Valve Rings, All Shapes
Light Weight Valves
Cylinder Liners and Pistons
for Diesel Service

**HUNT-SPILLER MFG. CORPORATION**
V. W. Ellet, *President* — E. J. Fuller, *Vice-Pres. & Gen. Mgr.*

383 Dorchester Ave. *Office & Works* South Boston, Mass.

Canadian Representative: Joseph Robb & Co., Ltd., 5575 Cote St. Paul Rd., Montreal, P. Q.
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International Rwy. Supply Co., 30 Church Street, New York, N. Y.

# HUNT-SPILLER GUN IRON
*Air Furnace*

he was appointed traveling time inspector, with headquarters at Washington, D. C. Mr. Travis served as examiner on the National Railroad Adjustment Board at Chicago from August, 1939, to September, 1942, when he became director of personnel of the Kentucky & Indian Terminal at Louisville, Ky., the position he held at the time of his recent appointment as personnel officer of the Southern.

**John Wiley Cox,** whose appointment as director of personnel of the Kentucky & Indiana Terminal, with headquarters at Louisville, Ky., was announced in the *Railway Age* of June 12, was born on June 15, 1902, at Ripley, Miss. Mr. Cox entered railroad service on September 1, 1921, as a clerk in office of the agent of the Southern at Birmingham, Ala. On May 16, 1924, he was appointed timekeeper in the superintendent's office at Birmingham, and on June 18, 1928, he became chief timekeeper, remaining in the latter position until September 16, 1939, when he became time inspector at Atlanta, Ga. Mr. Cox was advanced to chief time inspector, with headquarters at Washington, D. C., on November 15,

**John W. Cox**

1940, and served in that position until his recent appointment as director of personnel of the Kentucky & Indiana Terminal.

## OBITUARY

**Richard M. Crosby,** who retired in 1930 as mechanical superintendent of the Northern Pacific, with headquarters at Seattle, Wash., died recently at Tacoma, Wash.

**Philemon S. Lewis,** general manager of the Reading at Reading, Pa., whose death on July 7 was reported in the *Railway Age* of July 10, was born at Springfield, Ill., on May 10, 1889, and was graduated from Princeton University in 1911. Mr. Lewis, who served the Philadelphia & Reading (now Reading) and the Reading, throughout his entire railroad career, entered railroad service in 1911 as a rodman of the Philadelphia & Reading at Williamsport, Pa. Subsequently he became a construction inspector at St. Clair, Pa., assistant supervisor at Harrisburg, Pa., and Pottstown, signal inspector at Philadelphia, Pa., and supervisor at Camden, N. J., and Olney, Pa. In 1917 he was appointed passenger trainmaster at Reading. On September 20, 1917, Mr. Lewis was furloughed for military duty, and served successively as first lieutenant, captain and major, of the En-

**Philemon S. Lewis**

gineer Corps in operation at St. Mihiel, Argonne, Marne, and Chateaux Thierry. He was also executive officer to chief engineer of the 1st Army, and executive officer, Deputy Director General of Transportation, Chief of Troops Movement Bureau, Paris, France. On October 1, 1919, Mr. Lewis returned to the Reading as a trainmaster at Philadelphia, six months later becoming assistant superintendent of the Atlantic City division at Camden, and in August, 1921, he was advanced to the position of superintendent of that division. He was appointed superintendent of the New York division of the Reading on February 1, 1930, and on October 1, 1932, became assistant to vice-president at Philadelphia. Mr. Lewis was appointed general superintendent at Reading on July 1, 1933, and remained in that position until his election as general manager in July, 1941.

**Francis J. Kennedy,** who retired on January 31, 1940, as auditor of passenger accounts of the Pittsburgh & Lake Erie, with headquarters at Pittsburgh, Pa., died on June 27, at his home in New Brighton, Pa. He was 73 years old.

**Edwin Peters Mallory,** executive assistant to the chairman and president of the Canadian National at Montreal, Que., died on July 8, following a brief illness. Mr. Mallory, who was born on October 31, 1878, at St. Andrews, N. B., entered railway service in 1896 as an employee in the operating department of the Canadian Pacific. He resigned in December, 1899, to serve with the Canadian Dragoons in the South African War. After his cavalry service he was transferred to military railway duty at Johannesburg, and remained in South Africa following the declaration of peace, serving in the engineering department of the Central South African Railway at Pretoria until 1908. In that year he returned to Canada and entered the service of the Canadian Northern (now Canadian National) at Toronto, (Ont.,) serving in various capacities in the operating and construction departments. In 1919, following the amalgamation which led to the establishment of the present Canadian National, Mr. Mallory was assigned to the president's office at Toronto as a general statistician. At that time Mr. Mallory developed the system of operating control statistics which is still in effect on the system today. In 1923 he was appointed director of the Bureau of Statistics of the Canadian National at Montreal, and in 1930 his jurisdiction was extended to include the headquarters budgetary control system, while in 1932, he was assigned also to the duties of secretary of the finance committee of the board of directors. In 1930 and again in 1931, Mr. Mallory's services were loaned to the National Railways of Mexico as advisor to the committee on re-organization, headed by General Calles, the former President of Mexico. He was appointed assistant to the president of the Canadian National in May, 1934, and in December, 1936, he became executive assistant to the president, the position he

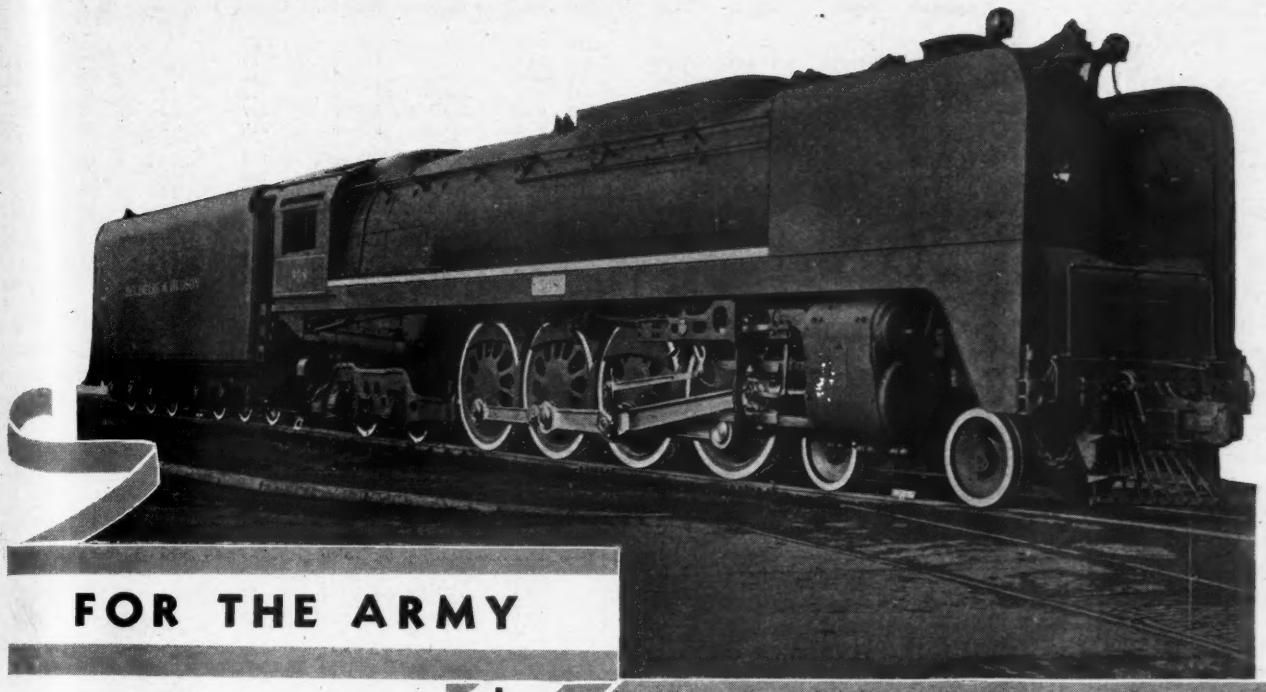
**Edwin P. Mallory**

held at the time of his death. Mr. Mallory served as president of the Canadian Railway Club during 1939.

**Fred Allen Coile,** personnel officer of the Southern system at Washington, D. C., who died on May 15, was born on March 11, 1882, at Dandridge, Tenn. Mr. Coile entered railroad service on November 5, 1902, as a clerk in the office of the superintendent of the Southern at Knoxville, Tenn., and on November 1, 1907, was advanced to secretary to the general superintendent at that point. On June 16, 1915, he became chief clerk to the superintendent at Asheville, N. C., and on February 5, 1917, he was sent to Washington, as secretary to the assistant vice-president, becoming chief clerk to the assistant vice-president at that point on December 1, 1918. Mr. Coile was appointed statistician, wages and working conditions, at Washington, on November 1 1922, and remained in that position until his appointment as personnel officer there on December 9, 1933, the position he held at the time of his death.



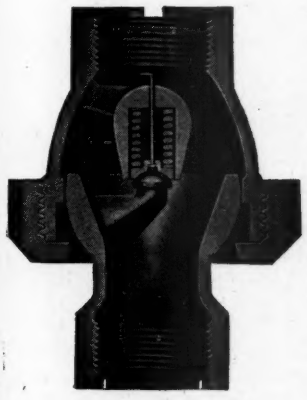
*Table of freight operating statistics appears on next left-hand page*



**FOR THE ARMY**

**and**

**FOR THE RAILROADS**



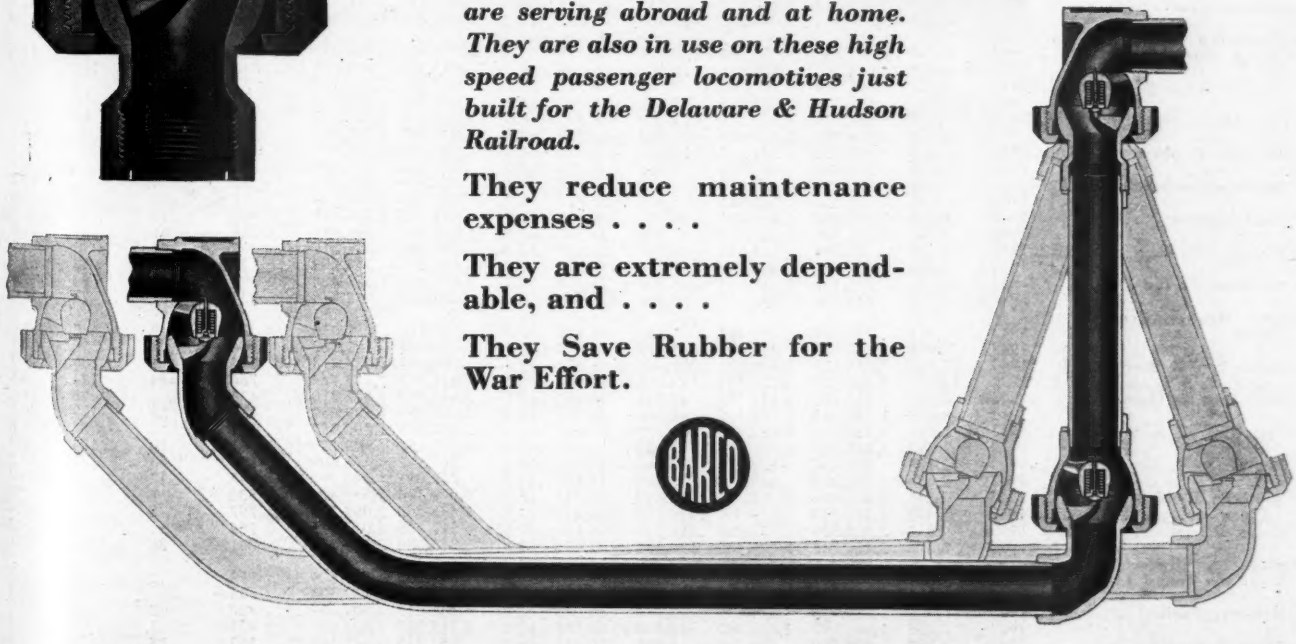
# Barco All Metal
## Engine Tender Connections

***are serving abroad and at home. They are also in use on these high speed passenger locomotives just built for the Delaware & Hudson Railroad.***

**They reduce maintenance expenses . . . .**

**They are extremely dependable, and . . . .**

**They Save Rubber for the War Effort.**



BARCO MANUFACTURING COMPANY

1800 W. Winnemac Ave. NOT INCORPORATED Chicago, Illinois

*In Canada* THE HOLDEN COMPANY, LTD.

Montreal — Moncton — Toronto — Winnipeg — Vancouver

# Freight Operating Statistics of Large Steam Railways—Selected

| Region, road, and year | Miles of road operated | Train-miles | Locomotive-miles: Principal and helper | Locomotive-miles: Light | Car-miles: Loaded (*thousands*) | Car-miles: Per cent loaded | Ton-miles (*thousands*): Gross excl. locos. & tenders | Ton-miles (*thousands*): Net-rev. and non-rev. | Road locos. on line: Serviceable: Unstored | Road locos. on line: Serviceable: Stored | Road locos. on line: B. O. | Road locos. on line: Per cent B. O. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **New England Region:** | | | | | | | | | | | | |
| Boston & Albany | 1943 | 362 | 172,230 | 204,631 | 35,520 | 4,188 | 61.7 | 285,620 | 122,591 | 85 | .. | 10 | 10.5 |
| | 1942 | 362 | 211,640 | 244,904 | 37,949 | 5,463 | 58.6 | 370,161 | 146,179 | 65 | .. | 17 | 20.7 |
| Boston & Maine | 1943 | 1,812 | 422,844 | 504,699 | 53,887 | 13,975 | 62.4 | 975,647 | 432,570 | 156 | .. | 27 | 14.8 |
| | 1942 | 1,853 | 412,885 | 482,573 | 48,381 | 15,005 | 64.8 | 954,189 | 395,781 | 162 | 2 | 21 | 11.4 |
| N. Y., N. H. & Hartf† | 1943 | 1,815 | 539,916 | 683,936 | 63,829 | 18,884 | 63.2 | 1,253,533 | 550,605 | 227 | 2 | 35 | 16.0 |
| | 1942 | 1,821 | 530,435 | 690,115 | 62,627 | 19,866 | 65.9 | 1,221,476 | 506,371 | 219 | .. | 38 | 14.9 |
| **Great Lakes Region:** | | | | | | | | | | | | |
| Delaware & Hudson | 1943 | 848 | 356,422 | 449,573 | 44,292 | 13,491 | 61.3 | 1,021,578 | 523,537 | 143 | 29 | 45 | 20.7 |
| | 1942 | 849 | 378,946 | 488,527 | 50,141 | 14,074 | 61.2 | 1,025,540 | 504,372 | 160 | 13 | 44 | 20.3 |
| Del., Lack. & Western | 1943 | 972 | 394,688 | 487,163 | 90,728 | 17,411 | 66.2 | 1,185,731 | 562,295 | 158 | 10 | 28 | 14.3 |
| | 1942 | 982 | 363,675 | 421,368 | 62,144 | 14,957 | 67.5 | 967,813 | 439,558 | 130 | 30 | 36 | 18.4 |
| Erie | 1943 | 2,242 | 1,094,484 | 1,181,699 | 84,407 | 47,644 | 62.8 | 3,265,107 | 1,458,012 | 327 | .. | 72 | 18.0 |
| | 1942 | 2,251 | 891,898 | 950,441 | 60,171 | 40,192 | 65.6 | 2,594,103 | 1,097,175 | 297 | 22 | 85 | 21.0 |
| Grand Trunk Western | 1943 | 1,026 | 304,848 | 308,715 | 2,533 | 8,938 | 59.5 | 628,930 | 269,386 | 68 | 2 | 15 | 17.6 |
| | 1942 | 1,026 | 244,093 | 251,639 | 2,013 | 7,903 | 61.7 | 510,256 | 196,580 | 59 | 5 | 20 | 23.8 |
| Lehigh Valley | 1943 | 1,248 | 513,847 | 564,940 | 79,282 | 21,152 | 60.0 | 1,539,230 | 726,988 | 144 | .. | 13 | 8.3 |
| | 1942 | 1,251 | 453,528 | 499,520 | 80,032 | 18,634 | 63.1 | 1,284,338 | 596,737 | 128 | 3 | 54 | 29.2 |
| New York Central | 1943 | 10,365 | 3,830,652 | 4,144,020 | 245,428 | 140,330 | 59.0 | 10,330,314 | 4,742,710 | 1,209 | 10 | 186 | 13.2 |
| | 1942 | 10,494 | 3,609,138 | 3,938,489 | 256,312 | 132,694 | 59.3 | 9,476,269 | 4,210,828 | 1,186 | 27 | 196 | 13.9 |
| New York, Chi., & St. L. | 1943 | 1,657 | 849,403 | 868,088 | 11,556 | 30,656 | 64.7 | 2,154,335 | 998,709 | 168 | .. | 18 | 9.7 |
| | 1942 | 1,657 | 824,734 | 837,055 | 9,784 | 29,363 | 62.2 | 1,963,264 | 821,909 | 158 | .. | 16 | 9.2 |
| Pere Marquette | 1943 | 1,998 | 483,983 | 503,504 | 13,654 | 14,856 | 64.2 | 1,025,077 | 483,531 | 143 | .. | 22 | 13.3 |
| | 1942 | 2,021 | 405,585 | 414,687 | 7,659 | 11,725 | 62.6 | 795,141 | 343,314 | 138 | .. | 25 | 15.3 |
| Pitts. & Lake Erie | 1943 | 233 | 95,331 | 100,175 | 102 | 4,117 | 61.2 | 365,838 | 213,219 | 48 | .. | 9 | 15.8 |
| | 1942 | 232 | 106,701 | 110,103 | 58 | 4,580 | 63.6 | 393,139 | 229,710 | 49 | 2 | 7 | 12.1 |
| Wabash | 1943 | 2,381 | 765,998 | 792,820 | 17,802 | 27,317 | 66.8 | 1,821,652 | 833,220 | 183 | 5 | 36 | 16.1 |
| | 1942 | 2,381 | 712,592 | 733,420 | 15,855 | 24,384 | 65.3 | 1,565,228 | 646,425 | 158 | 34 | 51 | 21.0 |
| **Central Eastern Region:** | | | | | | | | | | | | |
| Baltimore & Ohio | 1943 | 6,116 | 2,536,584 | 3,146,114 | 344,816 | 83,155 | 60.4 | 6,182,572 | 2,985,195 | 926 | 1 | 185 | 16.6 |
| | 1942 | 6,215 | 2,363,354 | 2,952,827 | 323,283 | 77,458 | 60.7 | 5,625,848 | 2,643,901 | 900 | 18 | 215 | 19.0 |
| Central of New Jersey† | 1943 | 657 | 269,922 | 313,259 | 61,677 | 9,037 | 63.9 | 652,293 | 340,697 | 135 | .. | 18 | 11.8 |
| | 1942 | 661 | 261,715 | 302,968 | 63,313 | 8,507 | 58.2 | 632,572 | 308,080 | 114 | 13 | 20 | 13.6 |
| Chicago & Eastern Ill. | 1943 | 912 | 298,339 | 314,779 | 8,055 | 8,997 | 57.4 | 657,458 | 293,619 | 76 | .. | 9 | 10.6 |
| | 1942 | 925 | 183,477 | 184,362 | 3,489 | 4,743 | 65.4 | 313,123 | 142,354 | 51 | .. | 16 | 23.9 |
| Elgin, Joliet & Eastern | 1943 | 392 | 137,413 | 140,746 | 2,861 | 3,657 | 63.7 | 292,931 | 158,763 | 69 | .. | 7 | 9.2 |
| | 1942 | 392 | 144,308 | 145,944 | 968 | 3,912 | 61.1 | 307,496 | 157,929 | 69 | .. | 10 | 12.6 |
| Long Island | 1943 | 374 | 39,899 | 41,705 | 16,443 | 388 | 53.7 | 31,888 | 14,570 | 46 | .. | 2 | 4.2 |
| | 1942 | 374 | 29,558 | 30,982 | 20,972 | 304 | 53.0 | 23,962 | 9,997 | 40 | 1 | 6 | 12.8 |
| Pennsylvania System | 1943 | 9,940 | 4,786,137 | 5,617,833 | 754,930 | 175,992 | 59.2 | 13,052,540 | 6,162,562 | 1,969 | .. | 169 | 7.9 |
| | 1942 | 9,952 | 4,781,704 | 5,636,558 | 697,607 | 174,163 | 59.5 | 12,730,466 | 5,878,495 | 1,978 | 10 | 172 | 8.0 |
| Reading | 1943 | 1,418 | 620,940 | 696,905 | 87,462 | 19,996 | 61.4 | 1,575,585 | 842,950 | 275 | 5 | 45 | 13.8 |
| | 1942 | 1,428 | 618,134 | 687,051 | 85,291 | 19,167 | 59.4 | 1,537,967 | 811,070 | 276 | 14 | 42 | 12.7 |
| **Pocahontas Region:** | | | | | | | | | | | | |
| Chesapeake & Ohio | 1943 | 3,031 | 1,099,853 | 1,181,509 | 55,505 | 49,644 | 56.2 | 4,340,853 | 2,445,978 | 439 | 3 | 65 | 12.8 |
| | 1942 | 3,050 | 1,069,983 | 1,138,468 | 52,452 | 49,005 | 56.0 | 4,197,626 | 2,322,736 | 413 | 9 | 72 | 14.6 |
| Norfolk & Western | 1943 | 2,134 | 827,774 | 895,017 | 66,161 | 36,425 | 56.9 | 3,257,458 | 1,775,994 | 312 | 8 | 19 | 5.6 |
| | 1942 | 2,146 | 791,641 | 840,747 | 53,028 | 36,058 | 57.6 | 3,133,238 | 1,706,150 | 296 | 8 | 31 | 9.3 |
| **Southern Region:** | | | | | | | | | | | | |
| Atlantic Coast Line | 1943 | 4,956 | 1,104,010 | 1,131,765 | 16,527 | 29,475 | 61.4 | 2,027,719 | 878,681 | 365 | .. | 29 | 7.4 |
| | 1942 | 4,983 | 1,016,443 | 1,037,316 | 13,957 | 26,094 | 61.7 | 1,667,718 | 667,215 | 332 | .. | 28 | 7.8 |
| Central of Georgia† | 1943 | 1,783 | 342,468 | 349,554 | 5,453 | 8,163 | 69.1 | 542,629 | 251,940 | 103 | .. | 12 | 10.4 |
| | 1942 | 1,783 | 304,419 | 306,523 | 4,651 | 6,939 | 70.2 | 428,965 | 185,503 | 105 | .. | 15 | 12.5 |
| Gulf, Mobile & Ohio | 1943 | 1,962 | 389,813 | 477,027 | 2,088 | 12,495 | 67.4 | 852,824 | 414,860 | 117 | .. | 7 | 5.6 |
| | 1942 | 1,959 | 318,047 | 387,601 | 5,620 | 10,994 | 69.6 | 683,801 | 309,739 | 101 | .. | 13 | 11.4 |
| Illinois Central (incl. | 1943 | 6,349 | 1,671,409 | 1,688,976 | 32,875 | 60,632 | 62.9 | 4,332,261 | 2,057,696 | 605 | 2 | 74 | 10.9 |
| Yazoo & Miss. Vy.) | 1942 | 6,500 | 1,817,399 | 1,824,831 | 32,924 | 61,719 | 59.8 | 4,372,801 | 1,943,166 | 612 | 10 | 86 | 12.1 |
| Louisville & Nashville | 1943 | 4,736 | 1,549,683 | 1,702,126 | 43,582 | 38,596 | 61.1 | 2,882,155 | 1,451,240 | 421 | 5 | 53 | 11.1 |
| | 1942 | 4,789 | 1,581,426 | 1,718,261 | 45,932 | 40,021 | 61.3 | 2,933,863 | 1,450,575 | 424 | 3 | 48 | 10.1 |
| Seaboard Air Line* | 1943 | 4,166 | 1,002,740 | 1,114,815 | 12,509 | 26,150 | 64.9 | 1,790,121 | 789,044 | 311 | .. | 29 | 8.5 |
| | 1942 | 4,293 | 937,077 | 994,231 | 8,047 | 24,202 | 65.5 | 1,573,473 | 668,334 | 272 | .. | 35 | 11.4 |
| Southern | 1943 | 6,478 | 2,199,783 | 2,249,158 | 31,538 | 47,430 | 66.5 | 3,161,440 | 1,451,532 | 595 | .. | 76 | 11.3 |
| | 1942 | 6,469 | 2,023,994 | 2,064,355 | 31,100 | 45,133 | 65.6 | 2,858,735 | 1,256,843 | 584 | .. | 90 | 13.4 |
| **Northwestern Region:** | | | | | | | | | | | | |
| Chi. & North Western† | 1943 | 8,098 | 1,011,352 | 1,056,224 | 24,640 | 30,438 | 63.4 | 2,165,366 | 989,235 | 381 | 33 | 87 | 17.4 |
| | 1942 | 8,262 | 965,740 | 998,826 | 21,224 | 30,149 | 65.3 | 2,005,556 | 829,098 | 340 | 47 | 155 | 28.6 |
| Chicago Great Western | 1943 | 1,447 | 295,924 | 301,702 | 8,147 | 8,762 | 65.3 | 610,153 | 271,099 | 71 | .. | 9 | 11.3 |
| | 1942 | 1,447 | 270,524 | 275,295 | 5,510 | 8,161 | 64.7 | 526,855 | 209,510 | 68 | .. | 16 | 19.0 |
| Chi., Milw., St. P. & Pac.† | 1943 | 10,757 | 1,557,611 | 1,650,218 | 71,892 | 48,001 | 66.9 | 3,310,041 | 1,590,078 | 523 | 25 | 63 | 10.3 |
| | 1942 | 10,813 | 1,415,985 | 1,477,420 | 60,869 | 44,768 | 64.6 | 3,005,097 | 1,345,101 | 471 | 63 | 94 | 15.0 |
| Chi., St. P. Minneap. & Om. | 1943 | 1,614 | 205,859 | 221,627 | 10,804 | 5,030 | 66.0 | 347,940 | 158,897 | 100 | 25 | 8 | 6.0 |
| | 1942 | 1,618 | 213,266 | 222,870 | 9,632 | 5,076 | 66.7 | 325,467 | 137,299 | 109 | 17 | 8 | 6.0 |
| Duluth, Missabe & Iron Range | 1943 | 546 | 55,213 | 55,654 | 978 | 2,304 | 53.4 | 201,914 | 122,403 | 53 | 4 | 8 | 12.3 |
| | 1942 | 543 | 110,220 | 110,961 | 1,348 | 5,841 | 51.2 | 505,444 | 304,130 | 51 | 1 | 5 | 8.8 |
| Great Northern | 1943 | 8,022 | 1,106,882 | 1,105,101 | 40,135 | 39,684 | 67.9 | 2,774,676 | 1,334,317 | 405 | 12 | 50 | 10.7 |
| | 1942 | 7,982 | 1,034,166 | 1,031,574 | 32,501 | 38,347 | 63.9 | 2,767,529 | 1,306,885 | 365 | 41 | 85 | 17.3 |
| Minneap, St. P. & S. St. M.† | 1943 | 4,258 | 435,298 | 443,644 | 6,584 | 11,177 | 66.3 | 762,865 | 364,517 | 136 | 1 | 5 | 3.5 |
| | 1942 | 4,258 | 437,956 | 445,944 | 7,115 | 10,829 | 61.8 | 727,144 | 313,698 | 129 | .. | 13 | 9.2 |
| Northern Pacific | 1943 | 6,572 | 983,397 | 1,051,999 | 85,220 | 38,920 | 73.4 | 2,615,370 | 1,339,480 | 391 | 1 | 54 | 12.1 |
| | 1942 | 6,593 | 830,576 | 888,657 | 60,256 | 31,689 | 70.3 | 2,033,406 | 953,844 | 334 | 37 | 73 | 16.4 |
| **Central Western Region:** | | | | | | | | | | | | |
| Alton† | 1943 | 915 | 258,624 | 281,463 | 286 | 6,669 | 67.7 | 463,470 | 231,050 | 70 | 2 | 7 | 8.9 |
| | 1942 | 915 | 263,571 | 288,765 | 1,329 | 6,589 | 60.7 | 450,048 | 191,603 | 64 | 1 | 6 | 8.5 |
| Atch., Top. & S. Fe (incl. | 1943 | 13,148 | 3,074,135 | 3,330,233 | 208,866 | 98,674 | 63.3 | 6,770,457 | 2,687,213 | 804 | 1 | 109 | 11.9 |
| G. C. & S.F. and P.&S.F.) | 1942 | 13,362 | 2,836,421 | 3,136,754 | 183,016 | 85,802 | 60.1 | 5,936,587 | 2,111,764 | 756 | 34 | 126 | 13.8 |
| Chi., Burl. & Quincy | 1943 | 8,833 | 1,453,769 | 1,542,752 | 42,586 | 49,410 | 65.1 | 3,472,994 | 1,637,310 | 476 | .. | 78 | 14.1 |
| | 1942 | 8,888 | 1,230,943 | 1,288,339 | 48,168 | 40,982 | 65.9 | 2,666,059 | 1,190,650 | 409 | 25 | 109 | 20.1 |
| Chi, Rock I. & Pac.† | 1943 | 7,719 | 1,551,519 | 1,622,883 | 20,755 | 44,039 | 62.7 | 3,037,898 | 1,306,357 | 381 | .. | 87 | 18.6 |
| | 1942 | 7,892 | 1,338,093 | 1,376,993 | 7,082 | 34,675 | 60.4 | 2,345,552 | 908,720 | 361 | 10 | 104 | 21.9 |
| Denver & R. G. Wn.† | 1943 | 2,405 | 449,492 | 522,273 | 82,366 | 14,324 | 70.6 | 967,942 | 478,008 | 176 | 3 | 32 | 15.2 |
| | 1942 | 2,430 | 382,979 | 438,510 | 59,696 | 11,820 | 67.8 | 777,081 | 346,590 | 147 | 17 | 25 | 13.2 |
| Southern Pacific—Pacific | 1943 | 8,245 | 2,329,036 | 2,626,969 | 369,092 | 89,951 | 65.8 | 6,070,146 | 2,582,434 | 832 | 6 | 112 | 11.8 |
| Lines | 1942 | 8,465 | 2,256,739 | 2,514,997 | 350,095 | 80,414 | 61.8 | 5,458,003 | 2,097,315 | 797 | 8 | 125 | 13.4 |
| Union Pacific | 1943 | 9,837 | 2,808,319 | 2,985,288 | 254,245 | 96,183 | 67.5 | 6,517,915 | 3,023,775 | 797 | .. | 92 | 10.3 |
| | 1942 | 9,870 | 2,416,745 | 2,529,445 | 176,531 | 82,431 | 64.8 | 5,245,180 | 2,120,173 | 741 | 26 | 96 | 11.1 |
| **Southwestern Region:** | | | | | | | | | | | | |
| Mo.-Kans.-Texas Lines | 1943 | 3,281 | 732,641 | 756,350 | 12,325 | 19,403 | 59.9 | 1,347,183 | 586,574 | 158 | .. | 15 | 8 7 |
| | 1942 | 3,281 | 578,268 | 586,566 | 10,206 | 16,076 | 66.6 | 1,003,542 | 429,523 | 105 | .. | 67 | 39.0 |
| Missouri Pacific† | 1943 | 7,070 | 1,826,486 | 1,924,814 | 50,488 | 60,273 | 63.9 | 4,144,611 | 1,904,307 | 487 | 2 | 66 | 11.9 |
| | 1942 | 7,108 | 1,562,097 | 1,615,867 | 32,110 | 48,576 | 62.0 | 3,355,221 | 1,426,013 | 454 | 7 | 49 | 9.6 |
| Texas & Pacific | 1943 | 1,887 | 409,780 | 409,780 | 6,925 | 12,883 | 68.5 | 853,723 | 347,151 | 113 | 18 | 10 | 7.1 |
| | 1942 | 1,887 | 320,217 | 320,217 | 2,239 | 10,030 | 62.8 | 657,764 | 243,945 | 94 | 28 | 49 | 28.7 |
| St. Louis-San Francisco† | 1943 | 4,640 | 1,030,088 | 1,088,653 | 22,165 | 24,462 | 64.0 | 1,671,176 | 757,660 | 325 | .. | 26 | 7.4 |
| | 1942 | 4,731 | 881,539 | 918,561 | 18,450 | 20,284 | 60.1 | 1,383,872 | 566,867 | 321 | .. | 21 | 6.1 |
| St. Louis-San Fran. & Texas | 1943 | 159 | 36,217 | 37,556 | 46 | 536 | 60.6 | 36,641 | 14,424 | 12 | .. | .. | .. |
| | 1942 | 159 | 29,045 | 29,319 | 123 | 488 | 60.2 | 31,957 | 11,852 | 10 | .. | 2 | 16.7 |
| St. Louis Southwestern | 1943 | 1,600 | 528,408 | 546,645 | 6,976 | 17,646 | 68.1 | 1,133,445 | 504,163 | 120 | 2 | 22 | 15.3 |
| Lines† | 1942 | 1,600 | 457,272 | 465,327 | 5,905 | 14,732 | 64.3 | 945,169 | 386,758 | 105 | 6 | 16 | 12.6 |
| Texas & New Orleans | 1943 | 4,339 | 1,235,142 | 1,244,543 | 47,074 | 31,979 | 61.3 | 2,242,422 | 926,484 | 252 | 2 | 24 | 8.6 |
| | 1942 | 4,400 | 872,403 | 873,261 | 13,134 | 23,700 | 63.9 | 1,570,864 | 642,296 | 227 | 15 | 15 | 5.8 |

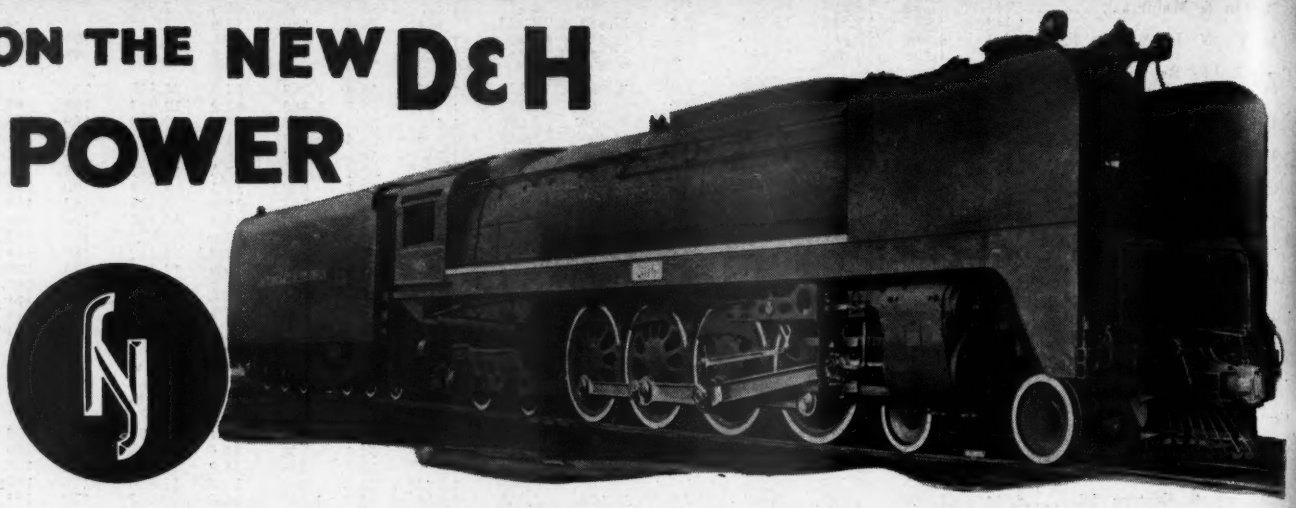
* Report of receivers.
† Report of trustee or trustees.
*Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.*

# Items for the Month of April, 1943, Compared with April, 1942

| Region, road, and year | | Freight cars on line: Home | Foreign | Total | Per Cent B. O. | G.t.m. per train-hr. excl. locos. and tenders | G.t.m. per train-mi. excl. locos. and tenders | Net ton-mi. per train-mile | Net ton-mi. per l'd. car-mile | Net ton-mi. per car-day | Car miles per car-day | Net daily ton-mi. per road-mi. | Coal lb. per 1000 g.t.m. inc. loco. | Mi. per day |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **New England Region:** | | | | | | | | | | | | | | |
| Boston & Albany | 1943 | 367 | 5,489 | 5,856 | 0.6 | 25,216 | 1,664 | 714 | 29.3 | 649 | 35.9 | 11,288 | 178 | 93.1 |
| | 1942 | 480 | 6,117 | 6,597 | 0.4 | 28,615 | 1,760 | 695 | 26.8 | 774 | 49.4 | 13,460 | 140 | 121.9 |
| Boston & Maine | 1943 | 2,292 | 8,804 | 11,096 | 1.7 | 35,069 | 2,315 | 1,027 | 31.0 | 1,188 | 61.4 | 7,958 | 102 | 106.6 |
| | 1942 | 3,487 | 9,813 | 13,300 | 2.4 | 33,889 | 2,323 | 964 | 26.4 | 920 | 53.8 | 7,120 | 92 | 103.6 |
| N. Y., N. H. & Hart.† | 1943 | 3,988 | 19,573 | 23,561 | 3.0 | 33,454 | 2,355 | 1,035 | 29.2 | 727 | 39.5 | 10,112 | 104 | 97.7 |
| | 1942 | 4,796 | 20,095 | 24,891 | 2.6 | 33,771 | 2,334 | 968 | 25.5 | 683 | 40.7 | 9,269 | 95 | 102.6 |
| **Great Lakes Region:** | | | | | | | | | | | | | | |
| Delaware & Hudson | 1943 | 4,746 | 4,699 | 9,445 | 2.8 | 46,252 | 2,878 | 1,475 | 38.8 | 1,768 | 74.3 | 20,579 | 107 | 78.7 |
| | 1942 | 6,106 | 6,043 | 12,149 | 4.0 | 42,269 | 2,726 | 1,341 | 35.8 | 1,363 | 62.2 | 19,803 | 102 | 83.7 |
| Del., Lack. & Western | 1943 | 6,980 | 12,323 | 19,303 | 2.6 | 43,038 | 3,080 | 1,460 | 32.3 | 1,006 | 47.0 | 19,283 | 129 | 106.4 |
| | 1942 | 7,986 | 10,251 | 18,237 | 3.6 | 44,399 | 2,687 | 1,220 | 29.4 | 817 | 41.2 | 14,921 | 116 | 86.1 |
| Erie | 1943 | 11,666 | 25,078 | 36,744 | 2.2 | 48,046 | 3,000 | 1,340 | 30.6 | 1,274 | 66.3 | 21,677 | 98 | 112.3 |
| | 1942 | 13,745 | 23,217 | 36,962 | 2.6 | 49,766 | 2,930 | 1,239 | 27.3 | 1,020 | 57.0 | 16,247 | 92 | 90.3 |
| Grand Trunk Western | 1943 | 2,633 | 7,703 | 10,336 | 2.8 | 42,550 | 2,076 | 889 | 30.1 | 938 | 52.3 | 8,752 | 90 | 130.4 |
| | 1942 | 4,126 | 6,534 | 10,660 | 4.1 | 39,886 | 2,103 | 810 | 24.9 | 599 | 39.0 | 6,387 | 83 | 109.0 |
| Lehigh Valley | 1943 | 8,185 | 17,906 | 26,091 | 1.7 | 49,200 | 3,079 | 1,454 | 34.4 | 914 | 44.3 | 19,417 | 110 | 144.0 |
| | 1942 | 7,700 | 15,477 | 23,177 | 1.3 | 51,734 | 2,891 | 1,343 | 32.0 | 869 | 43.0 | 15,900 | 105 | 112.5 |
| New York Central | 1943 | 49,018 | 96,541 | 145,559 | 2.7 | 41,859 | 2,726 | 1,251 | 33.8 | 1,081 | 54.2 | 15,252 | 100 | 114.6 |
| | 1942 | 69,173 | 82,227 | 151,400 | 4.7 | 43,554 | 2,653 | 1,179 | 31.7 | 940 | 50.0 | 13,375 | 94 | 110.3 |
| New York, Chi., & St. L. | 1943 | 3,619 | 13,739 | 17,358 | 1.9 | 47,416 | 2,547 | 1,181 | 32.6 | 1,891 | 89.7 | 20,091 | 87 | 167.2 |
| | 1942 | 5,228 | 13,005 | 18,233 | 1.8 | 43,662 | 2,386 | 999 | 28.0 | 1,511 | 86.8 | 16,534 | 87 | 171.9 |
| Pere Marquette | 1943 | 3,796 | 8,010 | 11,806 | 2.9 | 37,501 | 2,170 | 1,024 | 32.5 | 1,329 | 63.6 | 8,067 | 93 | 112.1 |
| | 1942 | 6,747 | 6,882 | 13,629 | 3.2 | 35,199 | 1,975 | 853 | 29.3 | 853 | 46.6 | 5,662 | 90 | 93.3 |
| Pitts. & Lake Erie | 1943 | 3,450 | 9,698 | 13,148 | 3.1 | 50,122 | 3,839 | 2,237 | 51.8 | 544 | 17.2 | 30,503 | 92 | 64.5 |
| | 1942 | 5,946 | 7,472 | 13,418 | 9.0 | 49,272 | 3,704 | 2,164 | 50.2 | 549 | 17.2 | 33,004 | 75 | 69.7 |
| Wabash | 1943 | 7,755 | 12,900 | 20,655 | 1.2 | 46,344 | 2,397 | 1,096 | 30.5 | 1,369 | 67.2 | 11,665 | 109 | 125.3 |
| | 1942 | 9,914 | 12,019 | 21,933 | 1.1 | 44,479 | 2,220 | 917 | 26.5 | 991 | 57.3 | 9,050 | 104 | 105.6 |
| **Central Eastern Region:** | | | | | | | | | | | | | | |
| Baltimore & Ohio | 1943 | 42,409 | 53,417 | 95,826 | 2.4 | 31,127 | 2,484 | 1,200 | 35.9 | 1,094 | 50.4 | 16,270 | 144 | 108.0 |
| | 1942 | 49,019 | 48,307 | 97,326 | 2.9 | 31,428 | 2,428 | 1,141 | 34.1 | 922 | 44.5 | 14,180 | 138 | 100.3 |
| Central of New Jersey† | 1943 | 5,859 | 22,231 | 28,090 | 0.9 | 28,148 | 2,452 | 1,281 | 37.7 | 406 | 16.8 | 17,285 | 142 | 108.3 |
| | 1942 | 7,143 | 18,394 | 25,537 | 1.9 | 30,709 | 2,489 | 1,212 | 36.2 | 400 | 19.0 | 15,536 | 126 | 107.3 |
| Chicago & Eastern Ill. | 1943 | 1,880 | 6,921 | 8,801 | 2.4 | 36,174 | 2,268 | 1,013 | 32.6 | 1,249 | 66.6 | 10,732 | 120 | 135.4 |
| | 1942 | 2,787 | 2,764 | 5,551 | 3.6 | 31,435 | 1,718 | 781 | 30.0 | 852 | 43.4 | 5,130 | 126 | 98.6 |
| Elgin, Joliet & Eastern | 1943 | 8,994 | 7,095 | 16,089 | 3.6 | 17,260 | 2,241 | 1,215 | 43.4 | 318 | 11.5 | 13,500 | 146 | 93.3 |
| | 1942 | 8,621 | 7,683 | 16,304 | 3.6 | 18,417 | 2,182 | 1,121 | 40.4 | 324 | 13.1 | 13,429 | 122 | 87.7 |
| Long Island | 1943 | 18 | 3,846 | 3,864 | 0.4 | 6,394 | 822 | 376 | 37.6 | 115 | 5.7 | 1,299 | 302 | 57.6 |
| | 1942 | 61 | 4,126 | 4,187 | 0.7 | 6,059 | 820 | 342 | 32.9 | 79 | 4.5 | 891 | 309 | 47.3 |
| Pennsylvania System | 1943 | 122,164 | 117,080 | 239,244 | 2.6 | 36,082 | 2,808 | 1,326 | 35.0 | 845 | 40.7 | 20,666 | 122 | 107.8 |
| | 1942 | 150,874 | 103,656 | 254,530 | 3.9 | 37,517 | 2,728 | 1,260 | 33.8 | 770 | 38.4 | 19,689 | 116 | 107.0 |
| Reading | 1943 | 12,073 | 26,535 | 38,608 | 1.8 | 29,744 | 2,547 | 1,362 | 42.2 | 714 | 27.6 | 19,815 | 127 | 90.9 |
| | 1942 | 18,789 | 23,031 | 41,820 | 5.1 | 30,984 | 2,497 | 1,317 | 42.3 | 648 | 25.8 | 18,933 | 117 | 90.4 |
| **Pocahontas Region:** | | | | | | | | | | | | | | |
| Chesapeake & Ohio | 1943 | 35,101 | 15,900 | 51,001 | 1.0 | 56,068 | 4,006 | 2,257 | 49.3 | 1,635 | 59.0 | 26,900 | 76 | 88.8 |
| | 1942 | 41,823 | 14,588 | 56,411 | 1.1 | 57,789 | 3,970 | 2,197 | 47.4 | 1,379 | 51.9 | 25,385 | 69 | 87.8 |
| Norfolk & Western | 1943 | 32,537 | 7,878 | 40,415 | 2.0 | 59,384 | 4,005 | 2,184 | 48.8 | 1,515 | 54.6 | 27.741 | 92 | 101.2 |
| | 1942 | 33,711 | 6,557 | 40,268 | 1.9 | 62,874 | 4,028 | 2,193 | 47.3 | 1,380 | 50.6 | 26,501 | 83 | 98.0 |
| **Southern Region:** | | | | | | | | | | | | | | |
| Atlantic Coast Line | 1943 | 8,663 | 22,781 | 31,444 | 2.4 | 28,820 | 1,844 | 799 | 29.8 | 900 | 49.2 | 5,910 | 109 | 104.6 |
| | 1942 | 10,323 | 14,873 | 25,196 | 4.9 | 28,366 | 1,649 | 660 | 25.6 | 868 | 55.1 | 4,463 | 105 | 105.4 |
| Central of Georgia† | 1943 | 3,983 | 4,885 | 8,868 | 1.4 | 28,477 | 1,601 | 743 | 30.9 | 920 | 43.1 | 4,710 | 119 | 110.1 |
| | 1942 | 3,040 | 5,042 | 8,082 | 1.5 | 26,072 | 1,420 | 614 | 26.7 | 744 | 39.6 | 3,468 | 121 | 94.8 |
| Gulf, Mobile & Ohio | 1943 | 2,531 | 6,948 | 9,479 | 1.1 | 39,516 | 2,196 | 1,068 | 33.2 | 1,417 | 63.3 | 7,048 | 114 | 134.3 |
| | 1942 | 3,055 | 6,814 | 9,869 | 1.2 | 40,442 | 2,156 | 976 | 28.2 | 1,158 | 59.0 | 5,270 | 105 | 122.0 |
| Illinois Central (incl. Yazoo & Miss. Vy.) | 1943 | 19.334 | 29,889 | 49,223 | 0.9 | 42,174 | 2,656 | 1,261 | 33.9 | 1,384 | 64.8 | 10,803 | 114 | 86.9 |
| | 1942 | 27,744 | 27,905 | 55,649 | 1.1 | 38,714 | 2,443 | 1,086 | 31.5 | 1,200 | 63.8 | 9,965 | 108 | 93.3 |
| Louisville & Nashville | 1943 | 30,486 | 15,032 | 45,518 | 2.2 | 27.902 | 1,860 | 937 | 37.6 | 1,073 | 46.7 | 10,214 | 131 | 127.5 |
| | 1942 | 34,188 | 16,050 | 50,238 | 1.9 | 28,055 | 1,860 | 920 | 36.2 | 968 | 43.6 | 10,097 | 122 | 131.6 |
| Seaboard Air Line* | 1943 | 8,034 | 18,795 | 26,829 | 1.7 | 28,097 | 1,828 | 806 | 30.2 | 935 | 47.8 | 6,313 | 123 | 121.9 |
| | 1942 | 9,297 | 14,051 | 23,348 | 1.5 | 28,167 | 1,720 | 730 | 27.6 | 963 | 53.3 | 5,189 | 120 | 120.5 |
| Southern | 1943 | 17,045 | 29,410 | 46,455 | 1.8 | 24,813 | 1,457 | 669 | 30.6 | 1,046 | 51.4 | 7,469 | 143 | 117.8 |
| | 1942 | 17,983 | 26,871 | 44,854 | 2.9 | 24,106 | 1,429 | 628 | 27.8 | 933 | 51.1 | 6,476 | 141 | 109.3 |
| **Northwestern Region:** | | | | | | | | | | | | | | |
| Chi. & North Western† | 1943 | 22,794 | 29,039 | 51,833 | 3.8 | 33,072 | 2,211 | 1,010 | 32.5 | 670 | 32.5 | 4,072 | 123 | 78.0 |
| | 1942 | 29,548 | 22,971 | 52,519 | 4.7 | 32,669 | 2,135 | 883 | 27.5 | 539 | 30.0 | 3,345 | 117 | 67.9 |
| Chicago Great Western | 1943 | 1,416 | 4,314 | 5,730 | 1.4 | 37,348 | 2,067 | 918 | 30.9 | 1,600 | 79.1 | 6,245 | 123 | 132.5 |
| | 1942 | 1.969 | 3,642 | 5,611 | 1.3 | 35.476 | 1.950 | 775 | 25.7 | 1,255 | 75.6 | 4,826 | 120 | 117.9 |
| Chi., Milw., St. P. & Pac.† | 1943 | 28,054 | 24,947 | 53,001 | 1.2 | 33,978 | 2,143 | 1,029 | 33.1 | 1,011 | 45.6 | 4,927 | 123 | 100.6 |
| | 1942 | 37,240 | 20,415 | 57,655 | 1.2 | 34,605 | 2,134 | 955 | 30.0 | 780 | 40.1 | 4,147 | 114 | 88.7 |
| Chi., St. P., Minneap & Om. | 1943 | 1,183 | 6,567 | 7,750 | 6.4 | 25,006 | 1,709 | 781 | 31.6 | 709 | 34.0 | 3,281 | 104 | 60.8 |
| | 1942 | 1,960 | 6,028 | 7,988 | 3.8 | 21,257 | 1,537 | 648 | 27.0 | 549 | 30.4 | 2,829 | 114 | 62.5 |
| Duluth, Missabe & Iron Range | 1943 | 14.686 | 233 | 14,919 | 1.6 | 61,001 | 3,768 | 2,284 | 53.1 | 272 | 9.6 | 7,473 | 73 | 31.8 |
| | 1942 | 13,210 | 337 | 13.547 | 1.9 | 77.179 | 4.728 | 2,845 | 52.1 | 744 | 27.9 | 18,670 | 64 | 63.2 |
| Great Northern | 1943 | 27,965 | 21,022 | 48,987 | 2.1 | 38,580 | 2,520 | 1,212 | 33.6 | 961 | 42.1 | 5.544 | 103 | 85.7 |
| | 1942 | 32,115 | 13,284 | 45,399 | 2.1 | 42,881 | 2,689 | 1,270 | 34.1 | 955 | 43.9 | 5,458 | 91 | 76.9 |
| Minneap., St. P. & S. St. M.† | 1943 | 8.117 | 5,207 | 13,324 | 4.1 | 30,728 | 1,771 | 846 | 32.6 | 897 | 41.5 | 2,854 | 96 | 108.4 |
| | 1942 | 10.384 | 4,372 | 14,756 | 3.0 | 29,444 | 1,669 | 720 | 29.0 | 691 | 38.6 | 2,456 | 96 | 107.3 |
| Northern Pacific | 1943 | 21,722 | 14,271 | 35,993 | 3.0 | 41,114 | 2,676 | 1,370 | 34.4 | 1,272 | 50.4 | 6,794 | 132 | 91.1 |
| | 1942 | 27,527 | 8,281 | 35,808 | 3.7 | 40,002 | 2,472 | 1,160 | 30.1 | 906 | 42.8 | 4,823 | 126 | 76.6 |
| **Central Western Region:** | | | | | | | | | | | | | | |
| Alton† | 1943 | 1,065 | 6,862 | 7,927 | 2.4 | 38,171 | 1,794 | 895 | 34.6 | 930 | 39.6 | 8,417 | 125 | 127.2 |
| | 1942 | 1.205 | 6,179 | 7,384 | 4.8 | 40,769 | 1,718 | 732 | 29.1 | 823 | 46.6 | 6,980 | 136 | 141.7 |
| Atch., Top. & S Fe (incl. G. C. & S. F. and P.&S.F.) | 1943 | 52.100 | 44,346 | 96,446 | 3.3 | 38,148 | 2,219 | 881 | 27.2 | 961 | 55.8 | 6,813 | 120 | 135.4 |
| | 1942 | 59.994 | 24,576 | 84,570 | 4.1 | 40.333 | 2,105 | 749 | 24.6 | 873 | 59.0 | 5,268 | 118 | 126.2 |
| Chi., Burl. & Quincy | 1943 | 16,994 | 22,130 | 39,124 | 2.2 | 38,722 | 2,404 | 1,133 | 33.1 | 1,342 | 62.2 | 6,179 | 105 | 99.9 |
| | 1942 | 24,182 | 15,355 | 39,537 | 3.1 | 37,889 | 2,177 | 972 | 29.1 | 1,010 | 52.8 | 4,465 | 104 | 85.8 |
| Chi., Rock I. & Pac.† | 1943 | 13.383 | 20,528 | 33,911 | 3.9 | 33.885 | 1,972 | 848 | 29.7 | 1,234 | 66.3 | 5,641 | 117 | 121.6 |
| | 1942 | 16,762 | 14,555 | 31,317 | 3.1 | 32,989 | 1,759 | 681 | 26.2 | 978 | 61.8 | 3,838 | 111 | 101.3 |
| Denver & R. G. Wn.† | 1943 | 8,345 | 9,304 | 17,649 | 2.8 | 30,097 | 2,179 | 1,076 | 33.4 | 899 | 38.2 | 6,625 | 174 | 98.7 |
| | 1942 | 9.722 | 4,945 | 14,667 | 3.2 | 33.914 | 2,040 | 910 | 29.3 | 815 | 41.0 | 4,754 | 164 | 91.9 |
| Southern Pacific—Pacific Lines | 1943 | 26,539 | 56,076 | 82,615 | 2.2 | 36,076 | 2,621 | 1,115 | 28.7 | 1,032 | 54.6 | 10,440 | 102 | 111.9 |
| | 1942 | 27,465 | 45,872 | 73,337 | 2.5 | 34,866 | 2,437 | 936 | 26.1 | 948 | 58.9 | 8,259 | 106 | 110.3 |
| Union Pacific | 1943 | 31,404 | 40,440 | 71,844 | 2.8 | 41,024 | 2,345 | 1,088 | 31.4 | 1,385 | 65.3 | 10,246 | 123 | 125.4 |
| | 1942 | 36,670 | 28,029 | 64,699 | 7.1 | 44,177 | 2,187 | 884 | 25.7 | 1,098 | 65.9 | 7,160 | 121 | 107.8 |
| **Southwestern Region:** | | | | | | | | | | | | | | |
| Mo.-Kans.-Texas Lines | 1943 | 2,964 | 9,895 | 12,859 | 0.8 | 32,451 | 1,851 | 806 | 30.2 | 1,489 | 82.2 | 5,959 | 87 | 158.4 |
| | 1942 | 4,467 | 8,954 | 13,421 | 5.0 | 33,040 | 1,749 | 749 | 26.7 | 1,142 | 64.2 | 4,364 | 85 | 122.6 |
| Missouri Pacific† | 1943 | 9.949 | 36,870 | 46,819 | 1.3 | 38,629 | 2,284 | 1,049 | 31.6 | 1,364 | 67.6 | 8,978 | 104 | 125.0 |
| | 1942 | 15,031 | 26,162 | 41,193 | 1.3 | 37,974 | 2,156 | 916 | 29.4 | 1,177 | 64.6 | 6,687 | 109 | 115.8 |
| Texas & Pacific | 1943 | 2,010 | 6,264 | 8,274 | 1.2 | 40,053 | 2,112 | 859 | 26.9 | 1,493 | 80.8 | 6,132 | 92 | 106.1 |
| | 1942 | 2,686 | 5,285 | 7,971 | 1.9 | 39,957 | 2,063 | 765 | 24.3 | 1,032 | 67.5 | 4,309 | 92 | 66.1 |
| St. Louis-San Francisco† | 1943 | 9,007 | 9,201 | 18,208 | 3.2 | 32,545 | 1,634 | 741 | 31.0 | 1,331 | 67.1 | 5,443 | 129 | 109.8 |
| | 1942 | 11,744 | 8,056 | 19,800 | 3.1 | 31,634 | 1,579 | 647 | 27.9 | 960 | 57.2 | 3,994 | 122 | 98.6 |
| St. Louis-San Fran. & Texas. | 1943 | .... | 260 | 260 | 13.5 | 17,650 | 1,013 | 399 | 26.9 | 1,635 | 100.2 | 3,024 | 133 | 111.6 |
| | 1942 | .... | 501 | 501 | 4.6 | 19,056 | 1,103 | 409 | 24.3 | 983 | 67.2 | 2,485 | 128 | 89.9 |
| St. Louis Southwestern Lines† | 1943 | 1,475 | 6,856 | 8,331 | 1.0 | 34.768 | 2,155 | 958 | 28.6 | 2,160 | 110.9 | 10,503 | 83 | 134.4 |
| | 1942 | 1,987 | 5,375 | 7,362 | 0.6 | 36,028 | 2,077 | 850 | 26.3 | 1,741 | 103.2 | 8,057 | 81 | 130.1 |
| Texas & New Orleans | 1943 | 4,229 | 20,035 | 24,264 | 2.2 | 30,307 | 1,840 | 760 | 29.0 | 1,226 | 69.0 | 7,117 | 88 | 162.6 |
| | 1942 | 4,407 | 15,041 | 19,448 | 1.7 | 34,499 | 1,815 | 742 | 27.1 | 1,085 | 62.6 | 4,866 | 83 | 120.3 |

# LOCOMOTIVE BRAKE EQUIPMENT

## ON THE NEW D&H POWER



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## KING SANDER TRAP Nº 34

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**Single, Duplex and Triplex operating valves to suit varying arrangements.**

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